

# For Reference

---

NOT TO BE TAKEN FROM THIS ROOM

Ex libris  
UNIVERSITATIS  
ALBERTAENSIS













THE UNIVERSITY OF ALBERTA

SELF-CONCEPT AND ATTITUDES TOWARDS EDUCATION OF  
INDIAN AND NON-INDIAN STUDENTS ENROLLED  
IN AN INTEGRATED SCHOOL

by



RODNEY A. CLIFTON

A THESIS

SUBMITTED TO THE FACULTY OF GRADUATE STUDIES  
IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE DEGREE  
OF MASTER OF EDUCATION

DEPARTMENT OF EDUCATIONAL FOUNDATIONS

EDMONTON, ALBERTA

FALL, 1971



UNIVERSITY OF ALBERTA

FACULTY OF GRADUATE STUDIES

The undersigned certify that they have read, and recommend to the Faculty of Graduate Studies for acceptance, a thesis entitled SELF-CONCEPT AND ATTITUDES TOWARDS EDUCATION OF INDIAN AND NON-INDIAN STUDENTS ENROLLED IN AN INTEGRATED SCHOOL submitted by Rodney A. Clifton in partial fulfilment of the requirements for the degree of Master of Education.



## ABSTRACT

Very little research has been directed towards assessing and comparing the attitudes of Indian and non-Indian students enrolled in integrated schools in the Province of Alberta. Thus, this study was designed to compare the self-concepts and the attitudes towards education of 53 Indian and 354 non-Indian students enrolled in the Ponoka Junior High School.

The theoretical rationale was derived from The Measurement of Meaning by Osgood, Suci, and Tannenbaum (1957). The technique of measuring meaning developed in this book (the semantic differential) has been used successfully to measure cultural attitudes.

In this study the students' self-concept was measured by the evaluative dimension of a semantic differential for the concept ME, and the students' attitudes towards education were measured by the evaluative dimensions for the concepts SCHOOL, BOOKS, ENGLISH, TEACHER, DISCIPLINE, EXAMINATION, READING, HOMEWORK, STUDYING, and LEARNING. The effects of sex and grade level were controlled in the analyses of self-concepts, and the effects of sex, grade level, and self-concept, were controlled in the analyses of the attitudes towards education.

The analyses of the self-concepts revealed that both the Indian and the non-Indian students had positive self-concepts, but the non-Indian students had significantly more





positive self-concepts than the Indian students. The analyses of the attitudes towards education revealed that the non-Indian students had a significantly more positive evaluation of the concepts READING and LEARNING than the Indian students. For the other eight concepts the differences between the Indian and the non-Indian students, in mean evaluative scores, were not statistically significant.

The analyses of the independent effects of the control variables revealed some interesting findings. Significant differences between the three grade levels were evident for the analyses of the self-concept. In the analyses of the attitudes towards education, significant differences were evident for three concepts in the comparison between the sexes, and significant differences were evident for six concepts in the comparisons between the three grade levels. Significant differences were also evident for eight of the ten concepts used to measure the attitudes towards education in the comparisons between the high and low levels of self-concept.

Thus, for the analyses of self-concept the differences between the ethnic groups were greater than the differences within the ethnic groups and for the analyses of the attitudes towards education the differences within the ethnic groups were greater than the differences between the ethnic groups.



## ACKNOWLEDGEMENTS

In the preparation of this thesis I acknowledge the direct and indirect assistance I received from many individuals.

Sincere thanks are extended to Mrs. Theresa Wildcat (Chairman) and the Hobbema School Committee, Mr. L. Vogell, Department of Indian Affairs, Mr. C.M. Ward, Superintendent of the County of Ponoka School System, Mr. R. Stuart (Principal) and the staff at the Ponoka Junior High School. Appreciation is also extended to the students for their participation in the study.

I would also like to thank my advisor, Dr. David Wangler, for his sincere interest and assistance, and the members of the thesis committee, Dr. B. Abu-Laban, and Dr. L. Gue, for their interest and critical reading of the thesis. Special thanks are extended to Dale Burnett, Division of Educational Research Services, for his assistance with statistical and methodological problems encountered in the study.

I am most grateful to my wife, Elaine, who was educated in a residential school on the Blackfoot Indian Reservation and various integrated schools in Southern Alberta, for critical discussions of the ideas that developed into this study. I am also grateful for her sympathetic understanding, assistance, and encouragement during the last three years.





## TABLE OF CONTENTS

Chapter		Page
I	INTRODUCTION TO THE PROBLEM.....	1
	The Problem.....	1
	An Introduction to the Theoretical Framework.....	5
	Significance of the Study.....	8
	Limitations of the Study.....	11
	Delimitations of the Study.....	14
	Assumptions.....	14
	Definition of Terms.....	15
	Indian.....	15
	Non-Indian.....	15
	Self-Concept.....	15
	Attitudes.....	16
	Culture.....	16
	Ethnic Group.....	16
	Acculturation.....	17
	Segregation.....	17
	Integration.....	17
	Overview of the Study.....	17
II	REVIEW OF RELATED LITERATURE.....	19
	Literature Related to the Theoretical Framework.....	19
	The Nature of Meaning.....	19
	The Measurement of Meaning.....	26
	The Dimensions of Meaning.....	31
	The Nature and Measurement of Attitudes.....	33
	An Evaluation of the Semantic Differential as a Generalized Attitude Scale.....	36
	Cross-Cultural Measurement of Attitudes.....	41
	Summary.....	49



Chapter		Page
	Literature Related to the Attitudes of Indian and Non-Indian Students.....	50
	Racial, Ethnic, and Cultural Values and Attitudes.....	50
	Attitudes of Indian and Non- Indian Students.....	54
	Summary.....	69
III	THE RESEARCH METHODOLOGY.....	72
	The Hypotheses.....	72
	Hypothesis 1.....	72
	Hypothesis 2.....	73
	The Instrumentation.....	74
	The Selection of Concepts.....	74
	The Selection of Scales.....	75
	Student Questionnaire.....	79
	Instructions for Answering the Student Questionnaire.....	80
	The Sample.....	81
	Collection of Data.....	83
	Research Design and Statistical Analysis.....	84
	Summary.....	87
IV	THE PRESENTATION OF THE FINDINGS.....	88
	The Self-Concept of the Indian and the Non-Indian Students.....	88
	Hypothesis 1.....	88
	The Attitudes Towards Education of the Indian and the Non-Indian Students.	91
	Hypothesis 2.....	92
	Attitudes Towards Schools.....	92
	Attitudes Towards Books.....	99
	Attitudes Towards English.....	101
	Attitudes Towards Teacher.....	102
	Attitudes Towards Discipline.....	103





Chapter		Page
	Attitudes Towards Examination.....	104
	Attitudes Towards Reading.....	105
	Attitudes Towards Homework.....	106
	Attitudes Towards Studying.....	107
	Attitudes Towards Learning.....	108
	A Summary of the Attitudes Towards Education of the Indian and the Non-Indian Students.....	109
	A Discussion of the Findings.....	109
V	SUMMARY, IMPLICATIONS, AND SUGGESTIONS FOR FURTHER STUDIES.....	113
	Summary.....	113
	The Problem.....	113
	The Hypotheses.....	113
	The Sample.....	114
	The Research Methodology.....	114
	The Findings.....	116
	Implications of the Study.....	118
	Suggestions for Further Studies.....	119
	REFERENCES.....	122
	APPENDIX A.....	129



## LIST OF TABLES

Table		Page
1	A Comparison of Indian Students Enrolled in Public and Private Schools in Alberta with the Total Indian Student Population of Alberta, 1944-1965.....	3
2	Rotated Factor Loadings for the Evaluative Scales Used in this Study.....	78
3	The Number of Students Included in the Study, by Ethnicity, Sex, and Grade.....	82
4	Means, Standard Deviations, and Significance of Differences of the Self-Concept, by Ethnicity and Sex.....	89
5	Means, Standard Deviations, and Significance of Differences of the Self-Concept, by Ethnicity and Grade.....	90
6	Means, Standard Deviations, and Significance of Differences for the Evaluative Scores of Ten Concepts, by Ethnicity and Sex.....	93
7	Means, Standard Deviations, and Significance of Differences for the Evaluative Scores of Ten Concepts, by Ethnicity and Grade.....	95
8	Mean, Standard Deviations and Significance of Differences for the Evaluative Scores of Ten Concepts, by Ethnicity and Self-Concept.....	97



## LIST OF FIGURES

Figure		Page
1	An Illustration of a Semantic Differential.....	6
2	Symbolic Account of the Development of Sign Processes: A. Development of a Sign; B. Development of an Assign.....	23
3	Assumed Relation Between Mediation and Semantic Space Models.....	30





## CHAPTER I

### INTRODUCTION TO THE PROBLEM

#### The Problem

In 1948 a special joint committee of the Canadian Senate and the House of Commons conducted a study on the education of Indian children in Canada. The report they issued recommended that Indian children should be integrated into the public school systems as soon as the necessary facilities were available (Canadian Association of School Superintendents and Inspectors, 1965, 50). As a result of their study, legislation was enacted thus beginning the integration of Indian students into non-Indian schools. Two years following the enactment of the legislation, the 1950-1951 school year, there were over two thousand Indian students registered in Canadian public and private school systems. In the 1963-1964 school year the number of Indian students registered in the public and private school systems had risen to over twenty-two thousand. At that time more than forty per cent of all Indian students were attending integrated schools (Government of Canada, 1964, 15).

The pattern of integrating Indian students into the public and private school systems of Canada was illustrated in microcosm by the plan to absorb the total population of Indian students in the Province of Alberta into its public





school systems. As in the Canadian pattern there has also been a dramatic increase in the enrolment of Indian students in the Alberta public school systems from 1949 to 1965. Table 1 reveals that in the 1949-1950 school year 2.3 per cent of all Alberta Indian students were enrolled in the public school systems, and fifteen years later, 44.9 per cent were enrolled in the public school systems. Table 1 illustrates the rate at which Alberta Indian students have been integrated into the public and private school systems in the Province from 1944 to 1965.

The experience of a wholesale integration policy has not always been successful. True, Indian students have a greater choice of courses in the Provincial high schools, but when they first enter non-Indian schools they are often less able to communicate in English and consequently they often have higher failure rates than the non-Indian students. Indian students have also experienced other problems in integrated schools, such as problems resulting from their family's relatively low standard of living as compared with the non-Indian students, their culture which is often apathetic to formal education, and their experiences with textbooks which are foreign and often hostile to their cultural traditions while sympathetic to the cultural traditions of their non-Indian classmates (c.f. Riessman, 1962, 17). Indian students are often considered outsiders in the non-Indian school just as their parents are often considered outsiders in the North American society (Dumont



TABLE 1  
A COMPARISON OF INDIAN STUDENTS ENROLLED IN  
PUBLIC AND PRIVATE SCHOOLS IN ALBERTA WITH  
THE TOTAL INDIAN STUDENT POPULATION OF  
ALBERTA, 1944-1965

School Year	Total Number of Pupils	Pupils Enrolled in Public and Private Schools	Percent Enrolled in Public and Private Schools
1944-1945*	1925	-	0.0
1949-1950†	2817	66	2.3
1954-1955†	3987	312	7.8
1959-1960†	4108	756	18.4
1964-1965†	7046	3158	44.9

Sources: \* Extracted from the Annual Report of the Department of Mines and Resources for the fiscal year ending March 31, 1945.

† Extracted from the Annual Report of the Department of Citizenship and Immigration for the fiscal years ending March 31, 1950, 1955, 1960, and 1967.



and Wax, 1969; Fisher, 1969; Fuchs, 1970). In this context, the greatest task for the school in which Indian students are enrolled is to "open the door to the dominant society" (Government of Canada, 1964, 50).

The experiences Indian students encounter in school results, in part, in the formulation of attitudes about school. The Indian students attending integrated schools have interacted in a unique situation and as a result of the many encounters with the teaching personnel and the other students they have formulated attitudes about school which may be different from the attitudes held by their non-Indian classmates. It has been assumed by the Indian Affairs Branch that Indian students are positively disposed towards being educated in integrated schools (Government of Canada, 1964, 69). Some facets of this assumption still remain to be examined. Thus, the problem of this study is to compare the self-concepts and the attitudes towards education of a sample of Indian students with the self-concepts and the attitudes towards education of a sample of non-Indian students. In pursuing this problem, extraneous variables are controlled by being incorporated into the analyses as independent variables. In this manner, the effects of sex and grade level are controlled in the analyses of self-concept, and the effects of sex, grade level, and self-concept, are controlled in the analyses of the attitudes towards education. The additional analyses of the control variables provide additional sources of





variation which are also subjected to tests of significance.

### An Introduction to the Theoretical Framework

A brief introduction to the theoretical framework used in this study will provide a simplistic view of the method used to measure the self-concept and the attitudes of the students. The theoretical rationale used in this study was developed by Charles Osgood and reported in The Measurement of Meaning (1957). Osgood has drawn from a wide variety of research in developing his theory of meaning and his technique of measuring meaning (Osgood, 1967). The technique he uses to measure meaning is called the semantic differential and was developed directly out of his early research on synesthetic thinking (Osgood and Suci, 1955, 325).

The semantic differential, illustrated in Figure 1, consists of a number of graphic rating scales with bipolar adjectives at each end. One of the first premises of Osgood's theory is that the rating scales measure different straight line functions that pass through the origin of an individual's semantic space. Another important axiom is that the semantic space is some unknown Euclidian dimensional expanse. The practical limits of the semantic space are determined by the number of identifiable as well as reliably and independently measurable dimensions. In a variety of factor analytical studies Osgood and his colleagues have identified three major dimensions of semantic space: the evaluative dimension, the potency dimension,





		BOOK								
		(7)	(6)	(5)	(4)	(3)	(2)	(1)		
a.	Fair	—	—	—	—	—	—	—	Unfair	
b.	Beautiful	—	—	—	—	—	—	—	Ugly	
c.	Good	—	—	—	—	—	—	—	Bad	
d.	Kind	—	—	—	—	—	—	—	Cruel	
e.	Nice	—	—	—	—	—	—	—	Awful	
f.	Happy	—	—	—	—	—	—	—	Sad	
g.	Pleasant	—	—	—	—	—	—	—	Unpleasant	
h.	Fast	—	—	—	—	—	—	—	Slow	
i.	Active	—	—	—	—	—	—	—	Passive	
j.	Hot	—	—	—	—	—	—	—	Cold	
k.	Large	—	—	—	—	—	—	—	Small	
l.	Strong	—	—	—	—	—	—	—	Weak	
m.	Heavy	—	—	—	—	—	—	—	Light	

Figure 1. An Illustration of a Semantic Differential



and the activity dimension.

The basic operation of "differentiating" the specific meaning of a concept is illustrated as follows: The subject is required to judge a concept against a series of seven unit scales. For example, in Figure 1, the concept BOOK is judged on a series of bipolar scales such as Good-Bad, Fair-Unfair, and Strong-Weak. The numbers 1 to 7 are assigned to each of the scales as illustrated. For each concept a quantitative value on each scale can then be determined. The factor analyses of many judgments by many different people for a great variety of concepts have yielded the factor structure of semantic space. Items a-g in Figure 1 represent the evaluative dimension, items h-j represent the potency dimension, and items k-m represent the activity dimension.

The evaluative dimension of the semantic space accounts for approximately twice the extracted variance of either the potency dimension or the activity dimension. The evaluative dimension is considered as an attitudinal dimension because the individual scales that compose that dimension definitely implies a favourable, neutral, or unfavorable disposition towards the object under appraisal (Osgood, Suci, and Tannenbaum, 1957, 191). Thus, the semantic differential, designed specifically as a technique of measuring semantic meaning, has also proven to be a very useful technique of measuring attitudes.

It has been feasible to identify "attitude" as one



of the major dimensions of meaning-in-general and thus to extend the measuring procedure of the semantic differential to an important area of social psychology (Osgood, Suci, and Tannenbaum, 1957, 189).

Following the logic of attitude measurement presented by Osgood, Suci and Tannenbaum (1957, 191-192) only the evaluative dimension of the semantic differential was used to measure the students' self-concept and their attitudes towards education.

### Significance of the Study

It has been recognized, that in Canadian society, education is one of the fundamental prerequisites for the achievement of economic and social opportunities of any group of people (Card, 1968, 51; Porter, 1965, 165-198). As Canadian society changes in the wake of industrial expansion the relationship between academic success and economic and social success will likely become much more evident. In this light, the wholesale integration of all Indian students into the Provincial school systems becomes an important implementation destined to influence not only the lives of the future Indian population, but also the lives of the non-Indian population. One of the effects of the integration of Indian students into the Provincial school systems has been evident for some time. That is, Indian parents have rarely had the opportunity to voice their opinions about the school their children attend, their program of studies, or the selection of staff (Canadian Association of School Superintendents and Inspectors, 1965,





64). However, the non-Indian parents have always had a voice in the school through the election of local school boards. The whole process of the education of Indian children in the Province of Alberta is ripe for investigation and criticism.

From a functional point of view, the school class may be seen as an important agent of socialization. Thus, one of the promises of education, besides the teaching of a certain body of facts, is the cultivation of desirable attitudes towards school, employment, and other people. The school is by no means the sole agent of socialization; the family, peer groups, churches, and other organizations, all contribute. But, while a child is enrolled in school, the school class may be regarded as one of the more significant agents (Parsons, 1959, 298). Thus, in establishing vocational and educational aims, the attitudes of various groups of students within society must be considered along with their abilities and interests.

Social scientists have a definite moral responsibility to communicate their findings to all segments of society and not to limit the results of their research strictly to other scientists who read the obscure journals (see Dahrendorf, 1959, vii). The poor as well as the rich should have access to the results of research that is concerned with their lives or the lives of their children. Specifically, in the field of education, the parents, teachers, and administrators should have access to the results of





research on the attitudes of "their children". This study will be significant because it will communicate the results of the comparison of the attitudes of the Indian and non-Indian students to those people whose lives are directly concerned with the education of the children involved in the study.

Theoretical reasons for the significance of this study are also evident. The social investigator is primarily a scientist who shares with all other scientists "the fundamental view that only through the systematic accumulation of empirical evidence and rigorous analysis can the realities of the physical and social world be revealed" (Rose, 1964, 3). Even though the evidence of this study has moral implications for the education of culturally different children, the investigator must restrict himself from substituting a moral judgment for the systematic study of the attitudes of the students under investigation and the further refinement and development of social theory.

There are many aspects of Canadian society that have not been studied extensively by social scientists. Often, in areas where knowledge is lacking, it has been assumed that Canadian society is a microcosm of American society. The testing of this assumption is one of the fertile fields for Canadian research. Thus, a comparative study of the attitudes of a sample of Indian students and non-Indian students in the Province of Alberta will contribute to the knowledge of Canadian society.



This study will also contribute to the theory and methodology of measuring attitudes. The semantic differential was devised to measure the varied dimensions of semantic meaning, of which the evaluative dimension is considered to be an attitudinal dimension. It is hoped that in a modest way this study will contribute to a greater understanding of the use and significance of the semantic differential technique of measuring and comparing the self-concepts and the attitudes of students of different ethnic groups within the Canadian mosaic.

#### Limitations of the Study

Indian cultures, like other cultures, vary widely (Benedict, 1934; Eggan, 1966; and Radin, 1944) and hence the self-concepts and the attitudes of a select sample of Indian students may not be representative of the self-concepts and the attitudes of all Canadian Indian students. Likewise, the self-concepts and the attitudes of the sample of non-Indian students may not represent the self-concepts and the attitudes of all non-Indian Canadian students.

As in other studies of this type, the self-concepts and the attitudes of each student have been obtained by measuring his responses to a series of written cue words. Most contemporary social scientists believe that there is a positive correlation between a person's written response, his "inner feelings", and his behavior towards the objects or ideas represented by the cue words. Most social scien-





tists also realize that written responses, as expressed attitudes, are not exact indicators of overt behavior. A person's behavior depends upon a multitude of factors, such as, his psychological and physiological well-being, the context of the situation, and a great number of attitudes the person holds about the many different aspects of that specific situation. Osgood and his colleagues support the view that attitude scores represent only a disposition towards certain general classes of behavior.

One of the most common criticisms of attitude scales of all types is that they do not allow us to predict actual behavior in real-life situations, like most such arguments, this one is over-drawn. Most proponents of attitude measurement have agreed that attitude scores indicate only a disposition towards certain classes of behavior, broadly defined, and that what overt response actually occurs in a real-life situation depends also upon the context provided by the situation (Osgood, Suci, and Tannenbaum, 1957, 198).

Thus, the results of this study will not fully predict the actual behavior of the Indian and non-Indian junior high school students as they interact with the school complex.

Another limitation is that both students and schools are very complex, and only a few of the many aspects of the students' self-concept and their attitudes towards education are examined. The students' self-concept, as measured and discussed in this study, is elicited by the evaluative dimension of the semantic differential for the concept ME. The students' attitudes towards education, as measured and discussed in this study, are elicited by the evaluative dimension of the semantic differential for the concepts





SCHOOL, BOOKS, ENGLISH, TEACHER, DISCIPLINE, EXAMINATION, READING, HOMEWORK, STUDYING, and LEARNING. The evaluative scores for these concepts are not considered to be inclusive of all the possible dimensions of the students' self-concept or all the possible attitudes that students may hold concerning education.

Since there are many extraneous variables not taken into consideration in the study, and since this is not an experimental or longitudinal study, no attempt will be made to discuss how attitudes change or the factors that cause certain attitudes to develop.

Another limiting factor is the bias introduced into the study by the researcher. The students' self-concept and their attitudes towards education may have been influenced to some extent by the communication between the researcher and the subjects. Previous research (Rosenthal and Resnow, 1969; and Silverman, 1968) has demonstrated that the researcher has some effect upon the responses made by different subjects.

A more important source of bias may have resulted from the researcher's interpretation of the data. It is quite conceivable that a researcher may interpret data in terms of his own predispositions, self-concept, and attitudes. The limitations introduced into a study by these biases may be very difficult to detect and even more difficult to control.



### Delimitations of the Study

The sample of students investigated in this study was limited to Indian and non-Indian students enrolled in grades 7, 8, and 9 in the Ponoka Junior High School. The delimitation of the sample meant that 53 Indian and 354 non-Indian junior high school students would be included in the study. The Indian students were all Cree Indians residing on the Hobbema Indian Reservation approximately ten miles north of the town of Ponoka. The non-Indian students resided either in the town of Ponoka or on farms in the surrounding county. It is realized that broad generalizations about the self-concepts and the attitudes towards education of either Indian or non-Indian students cannot be derived from a study in which the total sample of students are selected from one junior high school.

### Assumptions

The basic assumptions of all studies of self-concept and attitudes are that:

- (1) Self-concept and attitudes are measurable;
- (2) Self-concept and attitudes are normally distributed along a continuum from negative to positive;
- (3) The respondents can specify their self-concept and their attitudes in terms of the cue words and scales presented; and
- (4) The different scores on the inventory represents differences in self-concept and attitudes towards the objects





or abstractions represented by the cue words.

In this study it is also assumed that the semantic differential technique measures a similar evaluative component for both the Indian and the non-Indian students. It is also assumed that each cue word is similarly understood by the students from both ethnic groups.

### Definition of Terms

#### Indian

This term will only apply to those students who have registered Indian status, and will not apply to "metis" or other students who may have Indian ancestry but do not have registered Indian status. The Indian students included in this study are all registered Cree Indians and reside on the Hobbema Indian Reservation in central Alberta.

#### Non-Indian

The term non-Indian will apply to the students who do not have registered Indian status.

#### Self-Concept

The self-concept is a person's most valued and salient attitude towards himself. For the purpose of this study self-concept will be measured by the evaluative dimension of the semantic differential for the concept ME.





### Attitudes

An attitude may be defined as a relatively enduring organization of specific beliefs towards an object, abstraction, or situation predisposing a person to respond in some preferential manner. For the purpose of this study, attitudes towards education will be measured by the evaluative dimension of the semantic differential for the concepts SCHOOL, BOOKS, ENGLISH, TEACHER, DISCIPLINE, EXAMINATION, READING, HOMEWORK, STUDYING, and LEARNING.

### Culture

For the purpose of this study culture is defined as:

a system of socially acquired and socially transmitted standards of judgment, belief, and conduct, as well as the symbolic and material products of the resulting conventional patterns of behavior.... There are three major components of culture. First, the normative system tells people how they are supposed to behave and spells out duties, responsibilities, rights, and privileges.... Second, the action system includes customs, folkways, and a variety of other performance patterns. Third is the system of symbols and material products that result from human interaction (Lundberg, Schrag, and Larsen, 1963, 105).

### Ethnic Group

For the purpose of this study,

an "ethnic group" represents one of a number of populations which together comprise the species Homo Sapiens, and which individually maintain their differences, physical and cultural, by means of isolating mechanisms such as geographic and social barriers. These differences will vary as the power of the geographic and social - ecologic - barriers vary. Where these barriers are of low power, neighboring ethnic groups will inte-



grate, or hybridize, with one another. Where these barriers are of high power, such ethnic groups will tend to remain distinct from each other, or replace each other geographically or ecologically (Montagu, 1942, 73).

### Acculturation

This term pertains to, "the result of contact between groups possessing different cultures, to the changes in their behavior patterns and attitudes which inevitably ensue" (Rose, 1964, 57-58). Usually the cultural patterns of the dominant group are accepted by the minority group in this process.

### Segregation

For the purpose of this study, this term will refer to the policies restricting the Indian and non-Indian students from attending the same schools.

### Integration

For the purpose of this study the policy of integration will refer to the removal of the legal barriers imposing segregation in respect to education upon Indian and non-Indian students.

Other technical terms will be defined as they are used.

### Overview of the Study

Chapter I will introduce the problem and the theoretical framework. The significance, limitations, and delimita-





tions of the study will then be discussed followed by the assumptions and the definition of the important terms.

Chapter II will be a review of the literature. The first part of the chapter will be a review of the literature related to the theoretical framework and the second part will be a review of the literature related to the attitudes of Indian and non-Indian students.

Chapter III will present the hypotheses, the instrumentation, the sample, the method of collecting the data, and the research methodology and statistical analyses used in the study.

Chapter IV will present the findings. In the first section of this chapter the self-concepts of the Indian and the non-Indian students will be compared. In section two, the attitudes towards education of the Indian and the non-Indian students will be compared. The findings will then be discussed in terms of the control variables considered in the analyses.

Chapter V will present the summary, implications of the study, and suggestions for further studies.





## CHAPTER II

### REVIEW OF RELATED LITERATURE

In the first section of this chapter literature related to the theory and methodology of the semantic differential is examined, and in the second section, literature related to the attitudes of Indian and non-Indian students is reviewed.

#### Literature Related to the Theoretical Framework

In this section, the theoretical propositions developed by Osgood and his associates (1957) concerning the nature, measurement, and dimensions of meaning is examined. Literature concerning the use of the semantic differential as a technique for measuring attitudes and its validity on a cross-cultural basis is also reviewed.

#### The Nature of Meaning

Osgood's research into the nature of meaning is one of the most systematic attempts at developing a theory and a technique of measuring meaning (Osgood, Suci, and Tannenbaum, 1957, 1). Few other social scientists have ventured into this area partly because "meaning" was considered to be so extremely complex that for all intents and purposes it was unmeasurable. Osgood has recognized the complexity of "meaning" but he argues that meaning and behavior are so



intimately related that,

how a person behaves in a situation depends upon what that situation means or signifies to him.... (And) that one of the most important factors in social activity is meaning and changes in meaning... (Osgood, Suci, and Tannenbaum, 1957, 1).

Osgood and his associates go on to argue that:

The problem of meaning in behavior is probably no more difficult and certainly not greatly different from the problems of dealing with other intervening variables, like emotions and intelligence (Osgood, Suci, and Tannenbaum, 1957, 1).

In attempting to understand "meaning", Osgood and his colleagues have conducted experiments on the relationship between signs (spoken and written communication) and the significates of the signs (the objects the communication concerns). Such experiments have lead to the identification of two processes which are intimately related to semantic meaning. The initial process, identified by Osgood as the mediational process, has been defined as the "state which occurs in the organism whenever a sign is received (decoded) or produced (encoded)" (Osgood, Suci, and Tannenbaum, 1957, 3). Essentially the mediational process can be considered as:

a more or less continuous interaction between two parallel systems or behavioral organizations: sequence of central events ("ideas") and sequences of instrumental skills, vocalic, gestural, or orthographic, which constitute the communicative product (Osgood, 1952, 197).

The secondary process, the communicative product, has been defined as the relationship between a sign and the object signified by that sign.





For Osgood, an understanding of semantic meaning begins by recognizing that,

the pattern of stimulation which is a sign is never identical with the pattern of stimulation which is the significate... (but)... becomes a sign of that significate if it gives rise to the idea or thought of that significate (Osgood, Suci, and Tannenbaum, 1957, 3-4).

For example, the word "house" is not the same stimulus as an actual house. The word "house" is a pattern of sound waves having certain oscillation characteristics which are quite specific to one language, while an actual house is an object having certain physical characteristics such as color, shape, size, density, and smell which are not specific to one language. The word "house" is related to an actual house, and is not related to a multitude of other objects, such as a car, or a horse. In simplistic terms, the question Osgood is raising is:

Under what conditions does a stimulus which is not the significate become a sign of that significate?  
In other words we are seeking criteria for defining a sub-set of the class "stimulus", this sub-set to be called "sign" (Osgood, Suci, and Tannenbaum, 1957, 4).

The relationship between the sign and its significate can also be explained simply by stating that certain stimuli have unconditioned psychological connections with behavior patterns, for example, unconditioned reflexes, while other stimuli, such as, conditioned reflexes, have conditioned psychological connections with behavioral patterns. The significate can then be defined as "any stimulus which, in a given situation, regularly and reliably produces a pre-





dictable pattern of behavior" (Osgood, Suci, and Tannenbaum, 1957, 6).

Figure 2 illustrates the relationship between the significate, the sign, and the behavior. In Figure 2(A),

...this stimulus-producing process ( $r_m \rightarrow s_m$ ) is representational because it is part of the same behavior ( $R_T$ ) produced by the significate itself ( $S$ )... (and it is)... mediational because the self-stimulation ( $S_m$ ) produced by making this short-circuited reaction can now become associated with a variety of instrumental acts ( $R_x$ ) which "take account of" the significate (Osgood, Suci, and Tannenbaum, 1957, 6).

Thus, as in a typical Pavlovian experiment, a whistle becomes a sign ( $\boxed{S}$ ) of food ( $\dot{S}$ ) via the internal mediational process rather than a sign of something else. The whistle as the sign, becomes associated with the act of eating ( $R_x$ ). The act of eating ( $R_x$ ), in turn, reduces the anxiety raised by the whistle ( $\boxed{S}$ ). In terms of human communication,

words represent things because they produce in human organisms some replica of the actual behavior towards these things, as a mediation process (Osgood, Suci, and Tannenbaum, 1957, 7).

Figure 2(B) illustrates that even though a sign represents an object, the sign is only a fractional part of the meaning elicited by the significate itself. The meaning of the significate is some interrelationship, through the mediational process, of the multitude of experiences acquired whenever the sign has been previously produced.

A pattern of stimulation which is not the significate is a sign of that significate if it evokes in the organism a mediating process, this process (a) being some fractional part of the total behavior



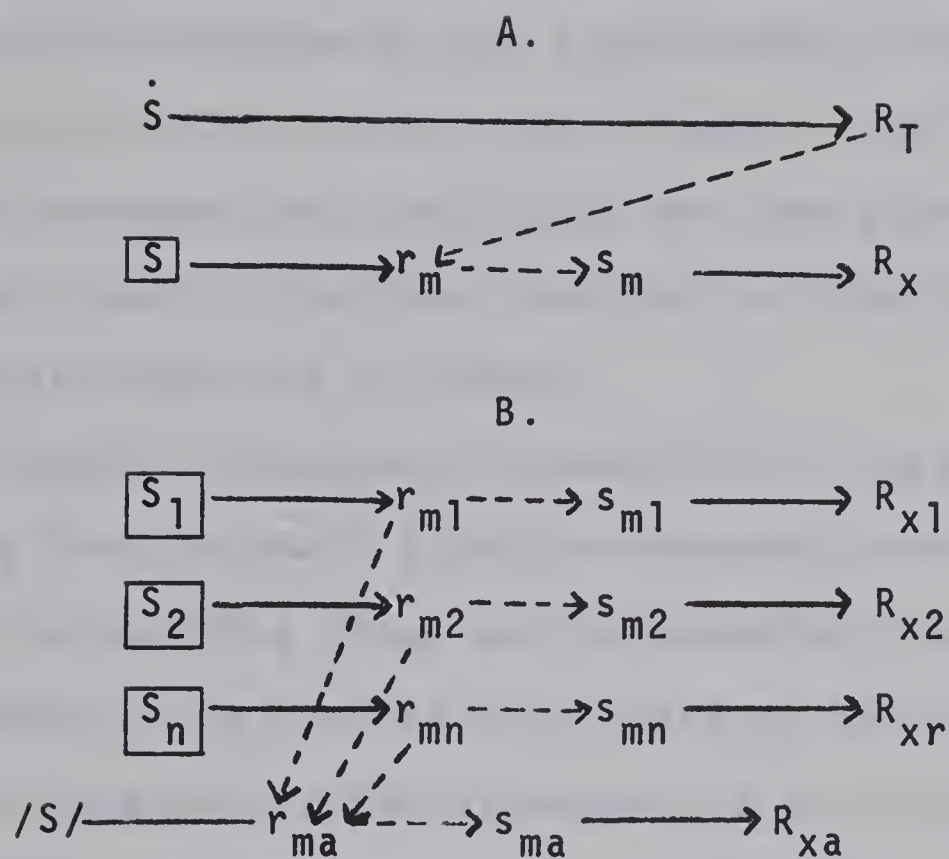


Figure 2. Symbolic Account of the Development of Sign Processes: A. Development of a Sign; B. Development of an Assign (Osgood, Suci, and Tannenbaum, 1957, 7).





elicited by the significate and (b) producing responses which would not occur without the previous contiguity of non-significate and significate patterns of stimulation (Osgood, Suci, and Tannenbaum, 1957, 7).

The mediational process must always include some aspect of the meaning produced by the significate if the sign is to represent that particular significate. The mediational process between the significate and the sign depends upon the individual's previous learning in relationship to both the significate and its sign.

Osgood's theoretical conception of meaning, in effect, divides the classical stimulus-response paradigm into two stages, a decoding stage and an encoding stage. The decoding stage is the part of the classical S-R process when a sign is received by the organism and associated through the mediational process to the significate. The encoding stage is when a sign of a significate is produced by the organism. Both stages are S-R processes. Hence in its theoretical conception,

this view encompasses two aspects of... meaning, semantic meaning (sign is related to significate via the common properties of  $r_m$  and  $R_T$ ) and pragmatical meaning (signs are related to overt behavior via the mediation function) (Osgood, Suci, and Tannenbaum, 1957, 8).

In human communication the majority of signs are assigned to the objects they signify as illustrated by Figure 2(B). The "meaning of words are literally 'assigned' to them via association with other signs rather than via direct association with the object signified" (Osgood, Suci,





and Tannenbaum, 1957, 8). Thus, for example, the various meanings of the word lion are assigned to the sign LION via the association of the sign with other signs rather than only via the direct association of that sign with the actual animal. The meaning a person has for the sign LION is identical with whatever representational process occurs in behavior when the person has been conditioned to the word lion in contiguity with stimulus patterns which have been characterized as lions (see Osgood, 1959). Thus, it is highly probable that individuals within a particular culture have slightly different meanings for the sign LION, in accordance with their experiences they have had during the time the sign was being conditioned and in accordance with their actual experience with lions. Figure 2(B) illustrates that the stimulus pattern /S/ acquires portions of the mediating reactions that have previously been associated with the primary signs  $S_n$ .

Osgood notes that the meaning of an assign for an individual may be seen as a cultural meaning for a group of people who share a common culture and language. A shared culture and language provides the framework for individual meanings, in part, because the individual first learns the meaning of an assign in interaction with significant other individuals. And as previously stated, the meaning of an assign is entirely dependent upon "the nature of the total behavior occurring while the sign is being established" (Osgood, Suci, and Tannenbaum, 1957, 9). Thus,



even though the meaning an individual has for an assign will reflect the idiosyncrasies inherent in the representational process which occurred when he was conditioned to that sign, there is a great degree of agreement within a culture for the meaning of many primary perceptual signs which have been universally experienced. This is not at all surprising:

Given the essential sameness of human organisms and the stability of physical laws, of course, the meaning of most primary perceptual signs should be quite constant across individuals (e.g., the significance of the visual cues arising from APPLE objects). Given stability of learning experiences within a particular culture, also, meanings of most common verbal signs will be highly similar (e.g., the adjective sweet will be heard and used in much the same type of total situation regardless of the individual in our culture) (Osgood, Suci, and Tannenbaum, 1957, 9).

On the semantic differential: "90 to 100 per cent of the subjects frequently choosing the same side, if not the same intensity" (Osgood, 1967, 372).

### The Measurement of Meaning

The semantic differential is the technique of measuring the mediational processes which is the central concern in Osgood's theory of meaning. The mediational processes are ephemeral and transient and are not open to direct observation. Thus, in order to understand the measurement of meaning it is important to understand the semantic differential technique.

Osgood postulates that there is a semantic space of unknown but finite Euclidian dimensions. Each scale of the semantic differential, composed of a pair of polar opposite





adjectives, represents a straight line that passes through the origin of the semantic space. Thus, the semantic differential is basically a combination of controlled associations and a scaling procedure. In a typical case, a subject is provided with,

a concept to be differentiated and a set of bipolar adjectival scales against which to do it, his only task being to indicate, for each item (pairing of a concept with a scale), the direction of his association and its intensity on a seven-step scale (Osgood, Suci, and Tannenbaum, 1957, 20).

For example, the concept BOOK may be presented for semantic differentiation on such scales as these:

BOOK							
Good	—	—	—	—	—	—	Bad
Beautiful	—	—	—	—	—	—	Ugly
Happy	—	—	—	—	—	—	Sad

The subject is asked to judge the concept BOOK in terms of its association with the adjectives, Good-Bad, Beautiful-Ugly, and Happy-Sad. There may be as many as twenty concepts and fifty scales for each concept presented to the subject. The general purpose of the investigation dictate the concepts to be rated and the scales to be used. An abstract form of a single scale may be represented in the following manner.





## CONCEPT

Polar Term A.	<u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>	Polar Term B.
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	

where, (1) is extremely A

(2) is quite A

(3) is slightly A

(4) is neither A nor B; equally A and B

(5) is slightly B

(6) is quite B

(7) is extremely B.

Thus, semantic differentiation means allocating a concept to a specific position in the multidimensional (Euclidian) semantic space by judging the concept on a series of bipolar adjective scales. The meaning of a sign (the concept) to a particular person has previously been defined as the mediational process which it elicits. In terms of the measuring procedure, the meaning of a sign is that point in the semantic space specified by differentiating judgments on a series of bipolar adjective scales. From this conceptualization, Osgood and his associates argue that:

The point in space which serves us as an operational definition of meaning has two essential properties - direction from the origin, and distance from the origin. We may identify their properties with the quality and intensity of meaning, respectively. The direction from the origin depends on the alternative polar term selected, and the distance depends on the extremeness of the scale positions checked.

...At this point we must make a rather tenuous assumption, but a necessary one. Let us assume that there is some finite number of representational mediation



reactions available to the organism and let us further assume that the number of these alternative reactions (excitatory or inhibitory) corresponds to the number of dimensions or factors in the semantic space. Direction of a point in the semantic space will then correspond to what reactions are elicited by the sign, and distance from the origin will correspond to the intensity of the reaction (Osgood, Suci, and Tannenbaum, 1957, 26-27).

Figure 3, a graphic representation of the model, may help clarify this assumption.

Corresponding to each major dimension of the semantic space, defined by a pair of polar terms, is a pair of reciprocally antagonistic mediating reactions, which we may symbolize as  $r_{mi}$  and  $\bar{r}_{mij}$  for the second dimension, and so forth. Each successive act of judgment by the subject using the semantic differential, in which a sign is allocated to one or the other direction of a scale, corresponds to the acquired capacity of that sign to elicit either  $r_m$  or  $\bar{r}_m$ , and the extremeness of the subject's judgment corresponds to the intensity of reactions associating the sign with either  $r_m$  or  $\bar{r}_m$ . There is actually evidence that words of opposed meaning are mediated by such reciprocally antagonistic reactions (Osgood, Suci, and Tannenbaum, 1957, 27).

In Figure 3, the sign  $\boxed{S}$  is represented as a specific point in three dimensions of an  $n$ -dimensional semantic space. The sign has projections onto each of the three dimensions.

The magnitude and direction of the coordinate on each dimension is, on the one hand, estimated from the direction and extremeness of the subject's judgment against those scales of the differential representing this dimension and, on the other hand, is assumed to be proportional to the intensity with which the sign elicits the  $r_m$  or  $\bar{r}_m$  corresponding to this dimension (Osgood, Suci, and Tannenbaum, 1957, 27).

The lower portion of Figure 3 is an illustration of the simultaneous meaning of a sign on a hierarchy of three of the infinite number of possible representational reactions.





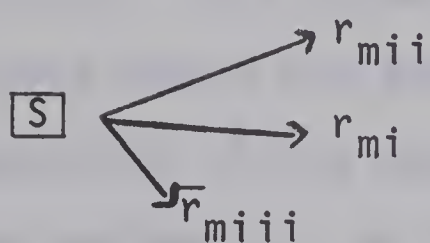
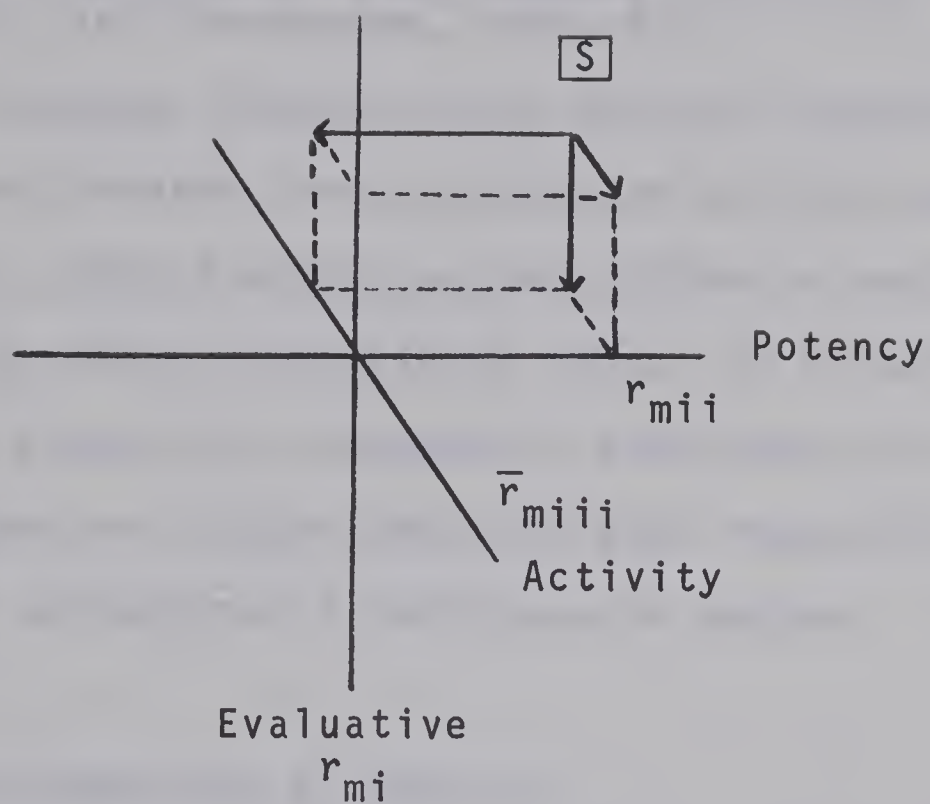


Figure 3. Assumed Relation Between Mediation and Semantic Space Models (Osgood, Suci, and Tannenbaum, 1957, 28)





In examining Figure 3, it should be remembered that,

whereas the reciprocal reactions within each dimension are assumed to be incompatible, those corresponding to independent dimensions are assumed to be compatible hence capable of simultaneous excitation (Osgood, Suci, and Tannenbaum, 1957, 28).

In essence, Osgood posits that all mediational states can be fractionated into a number of distinct mediating reactions, each of which can take either a positive (excitatory) or negative (inhibitory) form. In order to identify the major dimensions along which mediating reactions may vary, Osgood has factor analyzed many responses to many different concepts on a multitude of scales.

### The Dimensions of Meaning

In the factor analytical studies of the semantic differential, the variables under analysis are the bipolar adjectival scales. The adjectival scales constitute the dimensions along which the semantic meanings are initially measured regardless of the concepts involved. The purpose of the factor analysis is to organize the many bipolar adjectival scales into a certain minimal set. A concept will tend to have similar ratings on the scales that evoke similar mediational processes. For example, if a student rates the concept SCHOOL as Beautiful he is also likely to rate it as Good and Fair. Similarly if the concept SCHOOL is seen as being Ugly it is also likely that it will be judged as being Bad and Unfair.

In the preliminary studies of the dimensions of mean-



ing Osgood and his colleagues selected adjectives so that no a priori preconception of the dimensions of semantic meaning would influence the construction of the bipolar adjectival scales. For example, Osgood selected adjectives from both a frequency-of-usage table and Roget's Thesaurus.

In most of the studies of semantic space reported in The Measurement of Meaning (Osgood, Suci, and Tannenbaum, 1957, 31-75), three main dimensions emerged despite the efforts of the investigators to avoid bias. The three major dimensions of meaning, entitled, the evaluative dimension, the potency dimension, and the activity dimension, accounted for approximately 50 percent of the total variance and 98 percent of the common variance (Osgood, Suci, and Tannenbaum, 1957, 37). The evaluative dimension is represented by such scales as Good-Bad, Beautiful-Ugly, Valuable-Worthless, and Fair-Unfair, the potency dimension is represented by Large-Small, Strong-Weak, Heavy-Light, and Thick-Thin. The third dimension, called the activity dimension is represented by the scales Fast-Slow, Active-Passive, and Hot-Cold. The activity and potency dimensions may be collapsed into a single dynamism dimension.

Five additional dimensions of meaning have been identified, but these dimensions represent only a very minute portion of the common (extracted) variance. The three major dimensions together represent approximately 98 percent of the common variance. The evaluative dimension represents approximately 69 percent, the potency dimension





represents approximately 16 percent, and the activity dimension represents approximately 13 percent (Osgood, Suci, and Tannenbaum, 1957, 37).

The primary dimension of meaning is the evaluative dimension which represents four times the extracted variance of either the potency or activity dimensions. If the potency and activity dimensions are collapsed into the single dynamism dimension, the evaluative dimension still represents twice the amount of extracted variance represented by the new dimension. Thus an evaluative or attitudinal dimension appears to be the bed rock upon which human beings make semantic sense in their perceptions of the world.

A pervasive evaluative factor in human judgment regularly appears first and accounts for approximately half to three-quarters of the extracted variance. Thus the attitudinal variable in human thinking, based as it is on the bedrock of reward and punishment both achieved and anticipated appears to be primary (Osgood, Suci, and Tannenbaum, 1957, 72).

### The Nature and Measurement of Attitudes

Recent theories in social psychology have delimited three main components of attitude profiles; the affective component, the cognitive component, and the behavioral component (Katz, 1967, 339; Secord and Backman, 1964, 97-98). The affective component is the emotional feelings a person has for or against an object, institution, or person. The cognitive component "represents a person's knowledge, held with varying degrees of certitude, about what is true or false, good or bad, desirable or undesirable" (Rokeach,



1968, 450). Finally, the behavioral component is the tendencies of the individual to act in accordance with his evaluations (Katz and Stotland, 1959, 431).

Many theorists in social psychology also argue that attitudes are both determined and learned within an individual's cultural and language milieu (Festinger, 1957; Heider, 1958; Rosenberg, 1960; and Rosenberg and Abelson, 1960), and that attitudes, beliefs, and values are all part of an attitude or value system which is, in part, determined by the cultural milieu (Breer and Lock, 1965, 42). These theorists have related the conception of attitudes to systems of beliefs (Rokeach, 1963), values (Kluckhohn and Strodtbeck, 1961), and theories of learning (Inkeles, 1960; Sherif and Sherif, 1969, 336-337). Others, such as Parsons and Shils (1951, 5), while acknowledging a system of attitudes, have stated that for the purposes of measurement, attitudes may simply be considered as an evaluative expression along a "desirability-undesirability" scale (c.f. Ford and Meisels, 1965).

It is thus, highly significant for social psychology that the major dimension of semantic meaning is the evaluative or attitudinal dimension. In Osgood's conceptualization an attitude towards a concept is the projection of that concept onto the evaluative dimension of the semantic space (Osgood, Suci, and Tannenbaum, 1957, 190). Thus, in the measuring procedure, an attitude can be ascribed to a bipolar continuum with a neutral reference point, or varying degrees





of intensity in either the positive or the negative directions.

Osgood's conceptualization is an extension of recent theories, in that he proposes that attitudes are also the major dimension of an individual's semantic structure.

If attitude is, indeed, some portion of the internal mediational activity, it is, by inference from our theoretical model, part of the semantic structure of an individual, and may be correspondingly indexed (Osgood, Suci, and Tannenbaum, 1957, 190).

Since attitude is part of the theoretical model of semantic meaning, the measurement of attitudes complies essentially with the rationale set out by Osgood concerning the measurement of meaning (Brinton, 1961; Diar, 1965). Essentially the indexing of attitudes "would use sets of scales which have high loadings on the evaluative factor across concepts generally and negligible loadings on other factors" (Osgood, Suci, and Tannenbaum, 1957, 191).

To score the evaluations of concepts, Osgood and his colleagues have assigned the unfavorable poles of evaluative scale (e.g., Bad, Unfair, etc.) the score of "1" and the favorable poles (Good, Fair, etc.) the score of "7". The sum of all the evaluative ratings of one concept constitutes the "attitude score" towards that concept. It should be noted that the graphic scales are usually randomized in direction. In most graphic presentations of the semantic differential, a considerable number of scales representing the other dimensions of meaning are included along with the evaluative scales in an attempt to obscure the purpose





of the test. The other scales may also provide additional information on the mediational process the concept raises in the person aside from his attitude toward that concept.

In concluding the discussion of the nature and measurement of attitudes, it has been proposed that the semantic differential indexes the major properties of attitudes in a similar manner as many other generalized attitude scales. On the semantic differential the;

Direction of attitude, favorable or unfavorable, is simply indicated by the selection of polar terms by the subject; if the score falls more toward the favorable poles, then the attitude is taken to be favorable and vice versa. A score that falls at the origin, defined by "4" on the scales, is taken as an index of neutrality of attitude. Intensity of attitude is indexed by how far out along the evaluative dimension from the origin the score lies, i.e., the polarization of the attitude score. Although on a single scale there are only three levels of intensity "slightly", "quite", and "extremely" in either direction, summing over several evaluative scales yields finer degrees of intensity. If six scales are used, for example, we have a range of possible scores from six (most unfavorable), through 24 (exactly neutral), to 42 (most favorable), there being 18 degrees of intensity of attitude score in each direction.... Unidimensionality of the attitude scale is provided automatically in the factor analytic procedure from which the scales are selected. If the scales used on the same factor - ideally maintaining this consistency across various factor analyses - unidimensionality must obtain. In other words, factor analysis is itself a method for testing the dimensionality of the items or scales entering into a test (Osgood, Suci, and Tannenbaum, 1957, 192).

#### An Evaluation of the Semantic Differential as a Generalized Attitude Scale

Generalized attitude scales have been widely accepted by the social sciences since the 1930's when they were first



introduced by Remmers (1934) and Remmers and Silance (1934). The wide acceptance of generalized attitude scales is due, in part, to the undeniable advantages they hold over specific attitude scales.

For one thing, they are economical - if their validity can be assumed in new situations, they make unnecessary the development and standardization of specific scales for every attitude object, saving money, time, and effort. For another thing, they are available at the proverbial moment's notice.... But unquestionably, the major scientific value of generalized attitude scales is the matter of comparability: When a subject has one attitude score on a Thurstone scale for WAR and another score on a Thurstone scale for CAPITAL PUNISHMENT, we can conclude only in a most tenuous manner, if at all, that he is less favorably disposed toward one than the other. When exactly the same yardstick is used to measure both attitudes, however - again assuming that the generality of the instrument is valid - such direct comparison becomes much more tenable (Osgood, Suci, and Tannenbaum, 1957, 196).

The semantic differential has an additional advantage.

The semantic differential furthermore taps emotional and nonconscious responses. It helps to get around people's tendency to give well-reasoned, logical, socially acceptable replies. It encourages intuitive, impulsive, emotional expression of reactions. Essentially, it may be regarded as a projective measure of somewhat the same order as sentence completions or free associations (Kaufman, 1959, 437).

But of course, the semantic differential is not a panacea for indexing the major components of an attitude syndrome. A general limitation of all attitude inventories is that they do not predict the exact behavior of individuals or groups.

The semantic differential has been criticized by a number of individuals representing a variety of disciplines. Critics have questioned the assumptions underlying the







theoretical model and the measuring technique. John Carroll (1959), for example, raises the question of whether it is not possible to derive alternative interpretations from semantic differential data. "Notice, for example, how the adjective hard changes its meaning when linked with such concepts as ABORTION, ANGER, BOULDER, (and) CRIMINAL (Carroll, 1959, 75). Other critics raise questions concerning the comparability of semantic differential data with meaning as understood in linguistics (Weinrich, 1959). Others have questioned the scaling assumptions. For example, Messick (1957) questions the validity of the assumption that there are equal intervals within each scale and between scales. His study goes on to demonstrate that the scaling assumptions of the semantic differential are valid.

The questions raised by the critics are valid for the semantic differential as used in measuring meaning, but are less relevant for the semantic differential as a generalized attitude scale. There are no independent criteria to determine if the semantic differential measures the major dimensions of the mediational process as proposed by Osgood and his associates, therefore many of the validity and reliability studies have been directed towards assessing the semantic differential as a generalized attitude inventory. Fortunately there are accepted criteria for determining whether the semantic differential measures attitudes.

Comparative studies of the semantic differential and other "accepted" attitude inventories have been positive.



For example, in a comparative study of the semantic differential with a Thurstone scale designed to measure attitudes towards THE NEGRO, THE CHURCH, and CAPITAL PUNISHMENT,

The correlation between the semantic differential scores and the corresponding Thurstone scores is significantly greater than chance ( $p < .01$ ) in each case, and in no case is the across-technique correlation significantly lower than the reliability coefficient for the Thurstone test. The differences in the between-technique correlations from the first to second testing sessions are well within chance limits. It is apparent, then, that whatever the Thurstone scale measures, the evaluative factor of the semantic differential measures just about as well (Osgood, Suci, and Tannenbaum, 1957, 193-194).

A semantic differential has also been compared to a specially designed Guttman scale to assess the attitudes of farmers towards the practice of crop rotation. The rank-order correlation between the two attitude inventories was highly significant ( $\rho = .78$ ,  $p < .01$ ). "Again we may say that the Guttman scale and the evaluative dimension of the differential are measuring the same thing to a considerable degree" (Osgood, Suci, and Tannenbaum, 1957, 194). The evaluative dimension appears to be a valid method of measuring attitudes as based on high correlations with attitude scores gathered by the traditional Thurstone and Guttman scales. This evidence has been supported by recent studies. A study designed to investigate the degree of correspondence between the social desirability variable and the semantic differential, concluded that:

If one wishes to follow Osgood's definition of evaluation as the attitudinal dimension of judgment..., the social desirability of a questionnaire item or semantic differential scale may be viewed as an index





of the cultural "attitude" toward the characteristic referred to by the item or scale; and an individual's endorsement or rejection of a particular characteristic may be taken as one aspect of his "self-attitude" (Ford and Meisels, 1965, 472).

Other studies have shown that the semantic differential is a valid method of measuring attitudes towards national stereotypes (Prothro and Keehn, 1957), racial concepts and color names (Williams, 1966), and stereotypes held by grade nine pupils (Snider, 1962).

Tannenbaum conducted a test-retest reliability study on the evaluative dimension of the semantic differential. In his study, one hundred and thirty-five subjects judged six concepts on six evaluative scales at two occasions separated by five weeks. The test-retest coefficients ranged from .87 to .93 with a mean  $r$  of .91 (computed by Z-transformation) (Osgood, Suci, and Tannenbaum, 1957, 192). Under certain conditions a percentage-index may be a more revealing test of validity than the test-retest reliability coefficient. Norman (1959, 583) used this technique to establish a test-retest rank-order correlation of .80 on eight evaluative scales over a time lapse of four weeks.

In a study specifically designed to examine a method of extracting an attitude scale from semantic differential data, Brinton (1961) reports that five bipolar adjective scales (Just-Unjust, Good-Bad, Valuable-Worthless, Honest-Dishonest, and Fair-Unfair) representing the evaluative dimension of the semantic differential compared favorable with a Guttman scale. The comparisons revealed high co-





efficients of reproducibility (.975) and scalability (.915 by items and .892 by individuals) (Brinton, 1961, 294).

If a coefficient of correlation ( $r$ ) is squared ( $r^2$ ) it is a coefficient of determination. In the test-retest studies the coefficient of determination for the evaluative dimension has ranged from .64 to .90. That is, between 64 percent and 90 percent of the variance reported in the first test is also shared by the retest. The coefficients of determination are extremely high considering that some portion of the residual variance may have resulted from changing attitudes (see Tannenbaum, 1956).

Even though some critics have raised relevant questions concerning the basic assumptions of the semantic differential, they have acknowledged the significance of the technique in isolating the three dominant dimensions of semantic meaning as defined by Osgood and his associates. The evaluative dimension has been demonstrated to be a reliable and valid method of measuring and comparing attitudes of individuals and groups. As a result, the semantic differential has been used successfully as a generalized attitude inventory for both within cultural comparisons (see Brinton, 1961; and Mehling, 1959) and between cultural comparisons (see Rosen, 1959).

#### Cross-Cultural Measurement of Attitudes

As it has been stated before, one of the significant by-products of the semantic differential was both a new



approach and rationale for the measurement of attitudes. Since the evaluative dimension has been identified as the most significant dimension of semantic meaning, and since most people in all cultures make sense in a similar manner out of their environment, it follows that the semantic differential may be a good method of assessing and comparing the attitudes of people from different ethnic groups (Wiggins and Fishbein, 1959, 191).

The validity of the semantic differential as a method of assessing and comparing attitudes of different ethnic groups must rest upon the evidence of empirical investigations rather than only upon theoretical propositions. Just as the Rorschach test was demonstrated to be a useful psychological technique for the cross-cultural comparison of personality types (Henry and Spiro, 1953) the semantic differential may also prove to be as useful.

In a recent article, Osgood argues that social attitudes common to different ethnic groups have in fact been identified by the semantic differential. A specific attitude of an individual towards certain stimuli may be seen as a cultural attitude of an ethnic group. In Osgood's conceptualization:

a cognitive element for an individual is what we may call a cultural meaning (stereotype, public image, etc.) for a group. Although individuals within groups may be expected to vary in their private meanings, it is characteristic of cohesive groups, as Newcomb has shown, for interpersonal communication to produce increased uniformity of opinion and attitude.... Many of the applications of the semantic differential in the study of information about mental health and







illness, of images of political personalities and issues, of commercial institutions and products, and so forth - have dealt with cultural meanings based on reasonable representative groups of people. The degree of conformity on issues is often striking, 90 to 100 per cent of subjects frequently choosing the same side, if not the same intensity. This happens both for common meanings (tornadoes are active) and for attitude objects (the Bible is good) (Osgood, 1967, 372).

This does not imply that the relationships between ethnicity and attitudes, as noted by Osgood, enables researchers to make etiological inferences about the sources of attitudes. For example, in a cross-cultural educational setting, i.e., one where children from different ethnic groups are educated in the same classroom, it is beyond the scope of the semantic differential (and often the design of the research) to determine whether the locus of the attitudes are a factor of culture, the treatment the children receive in school, or the interrelationship of many factors.

There are a number of studies which reaffirm Osgood's faith that the semantic differential is a viable technique and rationale for the measurement and comparison of the attitudes of individuals from different ethnic groups. The combined results of these studies go a long way in demonstrating that semantic frames of reference do not really differ from culture to culture.

Kutmata and Schramm (1956) compared the responses of Korean and Japanese bilingual exchange students studying at Universities in the United States and American students on twenty scales and thirty concepts. All three groups of



students received two administrations of the test; the two groups of exchange students received one form in English and the other in their native language. Even though the problems of translating the semantic differential into Korean and Japanese were formidable, it was carried out with a moderate degree of success by three bilingual persons for each language.

The results of the study are surprising:

The American first test agrees the most with the American second testing. Similarly the agreement is highest between Japanese language version with the Japanese group taking the English version. The Korean language version shows the highest agreement with the Koreans taking the English language version. However, for all groups and all versions, the index of factorial similarity is well above the figure computed as a good estimate of the lower limit of agreement.

The first and dominant factor for all six analyses may be identified as an evaluative factor. The scales good-bad, kind-cruel, honest-dishonest, and fair-unfair have loadings of .80 or better and are relatively "pure" scales in that the extracted variance is almost entirely in this first factor. This first factor is in substantial agreement also with the results obtained in Osgood's study... (Kumata and Schramm, 1956, 234).

The remarkable amount of agreement between the three cultural groups tempts Kumata and Schramm (1956, 238) to postulate that "perhaps there is a pervasive semantic frame of reference used by humans", of which the evaluative dimension accounts for the greatest amount of extracted variance. They noted that this postulation must wait for further evidence before it could be stated unequivocally.

Further evidence necessary for the varification of the





Kumata and Schramm postulate was provided by a series of studies conducted in the early sixties. One of the most significant studies for the present research was undertaken by George Suci (1960). Suci's study extended the comparison of semantic structures to three groups of American Indian subjects, (Zuni, Hopi, and Navaho) and to a group of Spanish-Americans residing in the American Southwest.

Due to some difficulties, Suci considered his study to be limited in the generalizations that could be derived from the findings. In acknowledging that there are some limitations, the results can be summarized as follows:

The factor structures of a sample of semantic scales indicate that Zuni, Hopi, Spanish, and English - speaking S's define a semantic space with evaluative and dynamism dimensions. Although the semantic space for a group of Navaho could be defined with the same dimensions, the similarity measures were consistently lower for this group (Suci, 1960, 29).

It is particularly relevant to note that the coefficient of similarity for the evaluative dimension was consistently positive and moderately high ( $r = .72$  to  $.86$ ) for the four groups of subjects.

Maclay and Ware (1961) conducted a study which was designed to illustrate that the semantic differential would reflect cultural differences between a sample of Hopi, Navaho, and Zuni subjects that were known to exist as a result of previous ethnographic studies. The criteria for this evaluation were cultural distinctions derived from observational methods of cultural anthropology and thus, were considered to be independent of any results which the





semantic differential may demonstrate. An effort was made to select cultural distinctions that were compelling and so obvious that any anthropologist familiar with the cultures would agree that they exist. The concepts COYOTE, MEXICAN, CORN, MALE, HORSE, RAIN, and FEMALE were chosen because they satisfied the forementioned condition.

The researchers predicted that, for all seven concepts, the Hopi and Zuni subjects would judge the concepts in a similar manner because both have similar cultures which is usually classified as Western Pueblo (Benedict, 1934, 59; Eggan, 1950). It was also predicted that the judgment of the Zuni subjects would be closer to that of the Navaho than would the judgment of the Hopi subjects. This prediction was based upon observations that the Navaho have had more contact with the Zuni than with the Hopi (Vogt, 1951).

The results of the study indicated that the semantic differential reflected the cultural differences suggested by the field studies. Significant differences between the Zuni, Hopi, and Navaho were distinguished and in the order predicted by the field studies. The study concluded that:

An obvious application of such an instrument is to problems of covert culture. Most definitions of culture include non-observable elements such as values, ideas, and beliefs. The semantic differential has the potential of serving both to gather data in these areas and to evaluate hypotheses derived from other data. The evaluative factor, for example, offers a way of ranking events, people, and ideas on a good-bad continuum....

That the semantic differential was administered to a great many subjects in an area where field work is often extremely difficult (Hopi and Zuni) is testimony



to its field efficiency (Maclay and Ware, 1961, 189).

Helper and Garfield (1965) designed a study to determine if the semantic differential could be used as a viable indicator of acculturation of Indian students. The 232 Indian subjects were freshman and senior students at the Flandreau Indian Residential School in South Dakota, and represented a number of tribes from North and South Dakota, Nebraska, Wyoming, and Montana. The 123 non-Indian subjects were selected from freshman and senior classes in the public high schools from the Flandreau area.

The 355 subjects judged 14 concepts on 10 scales representing the three major dimensions of the semantic differential. Academic achievement scores were used as the independent measure of acculturation. It was argued that the acquisition of formal academic skills and knowledge, which were foreign to traditional Indian cultures, represented the most significant aspect of acculturation.

Because of some difficulties inherent in the methodology of the research, the Indian and non-Indian students were not compared on mean scores for each concept, but rather on their relative rank-order of a series of concepts.

In summarizing a salient methodological concern of the study, Helper and Garfield (1965, 819-820) note that the evaluative, activity, and potency factors of the semantic differential tap similar dimensions of meaning for both the Indian and non-Indian students. For example, the rank-order correlation between the two subgroups on the evaluative







dimension was high for both the males ( $\rho = .80$ ) and the females ( $\rho = .72$ ). The general findings of the study supported the initial hypothesis that the semantic differential would offer a viable means of assessing the relative acculturation of the Indian students.

The forementioned studies of American Indians offers considerable evidence that different tribes having different linguistic and cultural backgrounds utilize similar semantic frames of references as non-Indians whose native language is English. This observation is extremely important in the justification of the present study.

The proposition that many ethnic groups utilize a similar semantic frame of reference has been further illustrated by a study which compares Japanese and American subjects' evaluations of three distinct classes of concepts: Colors, Abstract Words, and Line Forms (Tanaka, Oyama, and Osgood, 1963). This study illustrated that the semantic differential was a viable method of measuring and comparing cross-cultural evaluations of the three groups of abstractions. It was also noted that the most salient dimension of meaning for both the Japanese and American subjects was the evaluative dimension.

Osgood summarizes a great amount of research on the use of the semantic differential carried out in 15 different countries and 6 different language families in an article published in the American Anthropologist (1964). The findings are summarized in the following words:



The major hypothesis of this research - that human beings share a common framework for differentiating the affective meaning of signs - is clearly borne out in the data. The dominant factors in the affective meaning system are Evaluative, Potency, and Activity, usually in that order (Osgood, 1964, 184).

Thus, the proposition put forward by Kumata and Schramm (1956, 238) that "perhaps there is a pervasive semantic frame of reference used by humans" has been supported by extensive research. Both the approach and rationale of the semantic differential have proven to be reliable in cross-cultural comparisons. As a result "one can consider cross-cultural differences in semantic differential ratings to constitute an index of attitude differences" (Rosen, 1959, 137).

### Summary

This section set out the main theoretical propositions of the semantic differential as proposed in The Measurement of Meaning (1957). Osgood and his associates have identified three major dimensions of semantic meaning: the evaluative dimension, the potency dimension, and the activity dimension. The evaluative dimension was considered to be specifically an attitudinal dimension because the individual scales composing that dimension definitely measure the intensity and direction of an individual's dispositions towards the concepts under appraisal. The attitudinal dimension of semantic meaning was also found to be the major dimension of meaning for 6 different language families





(Osgood, 1964). The evidence presented in this section goes a long way in varifying Osgood's theoretical conception that there is a pervasive semantic frame of reference common to all human language, and that the most significant portion of that frame of reference is an evaluative or attitudinal dimension.

### Literature Related to the Attitudes of Indian and Non-Indian Students

In this section of Chapter II relevant research literature on racial, ethnic, and cultural values, and attitudes that are common to Indian and non-Indian students are reviewed.

#### Racial, Ethnic, and Cultural Values and Attitudes

There are many overlapping meanings for the concepts "race" and "ethnicity" as they are used in the English language. For example, the concept "race" has often been used to designate national groups, such as Canadians, religious groups, such as Jews, cultural groups, such as Europeans, linguistic groups, such as Aryans, and geographic groups, such as North Americans. It is evident that a great amount of confusion has resulted from the many attempts at classifying these subdivisions of mankind (Firth, 1958, 18). The many systems of classification have been based upon different criteria, such as, color, place of residency, language, temperament, culture, customs, values, attitudes





and cephalic index. There are no distinct lines of demarcation between different groups of mankind, and thus all classifications are based upon criteria that have been arbitrarily selected. As a result, there is very little empirical evidence for the belief in biologically pure racial groups (Manson, 1961, 31-32; Montagu, 1965, 81-117).

Human populations are too mongrel and too variable to be grouped into races as meaningful as animal varieties. A classification on the basis of their genes is not yet possible. The classifications by appearance are not consistent. There are almost as many different groupings as there are physical anthropologists. The difficulties physical anthropologists have in reaching agreement on race classification is testimony that the data do not fall neatly and nicely into line as they ought to do if they truly represent an order in nature (Kluckhohn, 1963, 105).

The concept "race" has often been associated with the concept "culture". It has generally been accepted that while the concept "race" raises conceptual problems that are difficult to settle, the concept "culture" is a different issue altogether. In a broad sense, culture may be defined as the language, customs, personality type, beliefs, attitudes, norms, and values that are passed on from generation to generation via the socialization process. Many of the attributes which have been associated with "racial groups" are not racial attributes, but cultural attributes acquired through an existing society, its language, and its manner of behavior (see Montagu, 1962). Many people have noticed that certain cultural attributes are related to certain biological and physical characteristics of different



subgroups of mankind. In reference to this point, anthropologists have generally agreed that cultural differences are not caused by the shape of a person's nose, the color of his skin, or his cephalic index. Noticable physical differences between people have merely been the pegs upon which generalizations about cultural differences have been hung. In reference to this general discussion, Huxley (1941, 126) suggests that bannishing the use of the concept "race" and substituting the phrase "ethnic group" may be a simple method of eliminating some of the confusion. The concept "race" has generally been associated with genetic (inherited) characteristics whereas the concept "ethnic group" has generally been associated with characteristics which are passed on through cultural means.

When people confuse racial with ethnic traits they are confusing what is given by nature and what is acquired through learning. The confusion... has serious consequences, for it leads to an exaggerated belief in the fixity of human characteristics. What is given by heredity can be changed only gradually. What is learned can, theoretically at least, be completely altered in one generation (Allport, 1958, 113).

Within the bounds of this discussion, different tribes of North American Indians may be considered to belong to different ethnic groups. For example, Ruth Benedict has documented that the Pueblos of New Mexico and the Kwakiutl of the Northwest coast are well integrated societies even though they have gross differences in their behavior, values, norms, attitudes, beliefs, and language. Her interpretation of the cultures of the two tribes, even





though it has been criticized as being poetic, is interesting: the Kwakiutl were interpreted to be of Dionysian nature, and thus similar to most other North American Indian tribes, while the Pueblo were considered to be of Apollonian nature, and thus quite distinct from other tribes (Benedict, 1934, 80).

In recognizing that certain types of behavior are commonly associated with ethnicity does not imply that all human behavior is culturally determined. Social scientists do not deny that certain human behavior is influenced by culture, while satisfying physical and biological needs. Man responds to his biological needs and his physical world as well as to his social environment.

Like rats learning to run a maze that has food at its exit, children gradually familiarize themselves with the well-trodden but often devious intricacies of the cultural network. They learn to take their cues for response not merely from their personal needs nor from the actualities of a situation but from subtle aspects of the situation as culturally defined. This cultural cue says: be suspicious and reserved. That says: relax; be sociable. In spite of the diversity of individual natures, the Crow Indian learns to be habitually generous, the Yurok habitually stingy, the Kwakiutl chieftain habitually arrogant and ostentatious. Far from being always resentful at the walls of the cultural maze, most adults, and even children to some extent derive pleasure from the performance of cultural routines. Human beings generally find it highly rewarding to behave like others who share the same culture. The sense of running the same maze also promotes social solidarity (Kluckhohn, 1963, 177).

In summary, whenever people live together for extended periods of time they develop a common language, and fairly standardized beliefs, attitudes, and behavior. These attributes serve as prescriptions which indicate the manner in



which members of an ethnic group are expected to act in different situations. Such attributes are also used as a method of distinguishing in-group members from out-group members. There is considerable evidence to support a claim that ethnic groups are cohesive and often differ from each other in values, beliefs, attitudes, and norms (see Benedict, 1949; Borgardus, 1943; Gordon, 1964; and Gross and Martin, 1957).

### Attitudes of Indian and Non-Indian Students

In an extensive survey of Indian education in Canada, Hawthorn (1967, 120) reports that Indian students are often alienated from the school, its regulations, and the non-Indian staff as a result of their esoteric value system. In many cases the school procedures and regulations reflect the cultural values of the non-Indian society which, in many instances, are contraventions of the Indian value system. For example, most teachers expect a certain amount of material to be covered in a set period of time, exams to be written, and report cards issued and returned. It is extremely easy for a teacher to alienate Indian students, especially if he demonstrates that he has very little understanding or sympathy for the Indian cultural values by making undue demands upon the Indian student.

When faced with different norms, teachers fall back on their own patterns of thought and action and attempt to make the minority student fit those which are the most familiar and comfortable (Hawthorn, 1967, 121).





As a result of their alienation from the process of education, Indian students often develop low levels of motivation and aspirations. "The lack of effort anticipates the lack of achievement and confirms the sense of powerlessness." "The end result is stasis and a strong sense of alienation from people and events" (Hawthorn, 1967, 116).

Hawthorn reports that the alienation syndrome intensifies as the Indian child advances from grade to grade. In their first few years in school, the young Indian students are often highly motivated to please the teacher, but as time passes, alienation becomes much more evident and defeat much more inevitable.

Ability and motivation may not be lacking at the start but they are soon stifled and defeat becomes inevitable. The syndrome is instituted early in life and comes into full operation in the first year of school and has run its course between fifth and eight grade (Hawthorn, 1967, 118).

As a result, Indian adolescents see school as "a place in which they spend a given number of hours each day during which they learn few things of relevance, and in which they are faced with academic and social difficulties" (Hawthorn, 1967, 139). Hawthorn (1967, 139) notes that along with the intensification of the alienation syndrome, Indian students develop negative attitudes towards the school and teachers. They also develop negative self-images.

It is difficult to imagine how an Indian child attending an ordinary public school could develop anything but a negative self-image. First, there is nothing from his culture represented in the school or valued by it. Second, the Indian child often gains the impression that nothing he or other Indians do is right when





compared to what non-Indian children are doing. Third, in both segregated and integrated schools, one of the main aims of teachers expressed with reference to Indians is "to help them improve their standard of living, or their general lot, or themselves" which is another way of saying that what they are and have now is not good enough; they must do and be other things (Hawthorn, 1967, 142).

Friedenberg (1959) argues that the same type of alienation, lack of motivation, and negative self-image is evident with most adolescent students for similar reasons.

Evidence of alienation, low aspirations, and negative attitudes towards education were prevalent in the school at Blackfish village, a small Indian community on Vancouver Island (Wolcott, 1967).

Aspirations were measured by a projective essay technique. In response to the statement, "What I would like to be doing ten years from now", most of the students indicated they would like to be employed in the village; very few students aspired to leave Blackfish for further education or employment. Most students anticipated terminating their education when they reached the legal age rather than when they completed a specific grade or acquired specific skills (Wolcott, 1967, 95). The students seem to realize that the style of life common to Blackfish village did not depend upon acquiring a great amount of education.

Along with negative attitudes towards education and low aspirations, many students developed negative attitudes towards the teacher's role.

In spite of the positive recollections of two of their three previous teachers, the children's attitude toward



the teacher role tends to be a negative one. This seemed to be an attitude learned within the classroom, and I felt there was a more hostile attitude toward school among older pupils than among younger ones (Wolcott, 1967, 98).

In a study of the Sioux residing on the Pine Ridge reservation, Wax, Wax, and Dumont (1964) report that low levels of aspirations, negative attitudes, and negative self-images were evident among the adolescent students. Even though Sioux parents valued education and encouraged their children to continue in school, the students often dropped out before graduation (Wax, Wax, and Dumont, 1964, 43). Appropriate clothing, for example, was a very important requirement for the academic success, high aspirations, and positive self-image for high school girls. "Inadequate clothing is the most common reason given by both parents and daughters for the dropout of the latter from high school" (Wax, Wax, and Dumont, 1964, 51).

Along with low aspirations, Sioux students developed negative attitudes towards education. The young students were often highly motivated to learn, but as time passed, negative attitudes intensified (Wax, Wax, and Dumont, 1964, 80-88). Often, negative attitudes were reinforced by the non-Indian teachers who did not respect the Indian students by treating them like babies and lecturing them about their lack of respect for the school (Federal) property (Wax, Wax, and Dumont, 1964, 63, 73). Negative attitudes were also reinforced by the student's peer group.

Performance of a child within the schoolroom is affected two different ways by the attitudes of his







peers. On the one hand Indians tend to ridicule the person who performs clumsily: An individual should not attempt an action unless he knows how to do it; and if he does not know, then he should watch until he has understood. In European and American culture generally, the opposite attitude is usually the case; we "give a man credit for trying" and we feel that the way to learn is to attempt to do (Wax, Wax, and Dumont, 1964, 95).

Along with the negative attitudes that developed as a result of the interaction of the Sioux students with the non-Indian teachers within the school environment, negative self-images developed. "As they see it, Indians who encounter Whites are always doing 'awful things' like dressing oddly, eating with their fingers, or 'making mistakes' in English" (Wax, Wax, and Dumont, 1964, 59).

Sheps (1970) hypothesized that students from different Indian tribes would have different responses towards 30 statements representing commonly accepted non-Indian attitudes. The subjects selected for this survey were Apache, Hopi, Papago, and Pima students residing in three boarding schools located in Nevada, California, and Arizona. Approximately 30 grade 9 students from each residential school were randomly selected to participate in the study. The attitude inventory was designed to measure both the differences in attitudes between the Apache, Hopi, Papago, and Pima subgroups and the differences between the Indian attitudes and the accepted non-Indian attitudes. A previous study had demonstrated that agreement with the thirty statements on the inventory represented the accepted attitude of the non-Indian society. The thirty statements represented



general attitudes towards education, family relationships, and the law. The three general categories of attitudes used by Sheps (1970, 20-21) are illustrated by the following examples:

When your teacher tells you to stay after school  
you should obey.....A\_D\_

You should obey your parents when they tell you  
to do something.....A\_D\_

If you continually break the law you should be  
punished.....A\_D\_

The results of the study revealed that 80 percent of the Indian students, regardless of tribe, sex, or school, accepted the non-Indian attitudes. Only a very few individuals disagreed with all thirty statements; those who did, were considered to be expressing individual predispositions rather than culturally-based attitudes.

Harkins (1968) focused on a comparison of the attitudes of Chippewa elementary school children living on a reservation in Minnesota with non-Indian children who live close to the reservation. The several hundred students participating in this study were enrolled in four elementary schools, three of which were located in small Indian communities, and the fourth was located in a near-by city.

The attitudes of the elementary school students were measured by means of a projective essay technique. Harkins requested that each teacher have his students write an essay in response to the question "What is school?" It was hypothesized that the essays would provide a comparative





insight into the attitudes the elementary school students had developed towards education.

The general findings of the study revealed that the Indian students were significantly less critical of the school than were the non-Indian students. For example, at the fourth grade level, 60 percent of the suburban non-Indian students, 30 percent of the "Bordertown" non-Indian students, and only 10 percent of the Indian students wrote critical statements about the school. The Indian children, while less critical of the school, did not recognize that a major function of education was to prepare students for future employment. Virtually no Indian child mentioned that vocational preparation was one of the reasons for them to continue with their education. The non-Indian students, on the other hand, had learned to criticize the school while also recognizing the importance of education for future employment opportunities.

Bean's study (1966) was designed to compare specific attitudes of 137 Indian and 329 non-Indian students enrolled in grade 9 and 11 in the Salt Ste. Marie area of Ontario. The attitude inventory measured variations on scales such as, radical-conservative, authoritarian-democratic, self-concept, and submissiveness. Several additional questions were designed to gather attitudes towards specific aspects of education.

The general findings revealed that the Indian students were: less democratic, less tolerant towards ambiguity,





less achievement oriented, less inclined to pursue post secondary education, more concerned for the future, more willing to share, more submissive, and showed more opposition towards authoritarianism, than the non-Indian students. The Indian students also exhibited a slightly lower self-concept than the non-Indian students. Both Indian and non-Indian students agreed that there was a need to develop their ability to think out solutions to problems and that rote memorization was not a satisfactory goal for education. Both groups desired to continue with post secondary education, although the non-Indian students showed a slightly greater desire. Responses to another question indicated that the non-Indian students were more critical than the Indian students of the existing educational institution.

Hamilton (1966) focused on the perception of problems of Indian and non-Indian students enrolled in four integrated junior high schools in the province of Alberta. He administered questionnaires to 436 non-Indian students, 122 Indian students, and 60 teachers.

The salient feature of this study may be summarized as follows: the majority of Indian and non-Indian students have positive attitudes towards receiving their education in an integrated school. It was noted that Indian students cling to their native language and may need special instructions in English so they can participate in class discussions on an equal level with their non-Indian peers.

In an application of the semantic differential to the



problem of acculturation, Helper and Garfield (1965) compared the judgments of 14 concepts by 233 Indian and 123 non-Indian students as described above. The subjects judged the concepts, INDIAN, WHITE PERSON, THE FUTURE, BEING ON TIME, PLANNING AHEAD, ME, ME AS I WANT TO BE, MY MOTHER, MY FATHER, FLANDEAU SCHOOL, QUITTING SCHOOL, DRINKING, SPEAKING ENGLISH, and GETTING MAD, on ten scales representing the three major dimensions of meaning. These concepts were chosen because it was thought that variations in their semantic scores would indicate varying degrees of acculturation. In using academic achievement scores as the independent measure of acculturation, Helper and Garfield argued that the acquisition of formal academic skills and knowledge, which are foreign to traditional Indian cultures, represented the most significant aspect of acculturation.

One of the significant findings of this study was that the Indian students ranked the concept INDIAN higher than the non-Indian students ranked the concept WHITE PERSON. Furthermore, the Indian students ranked the concept INDIAN closer to the concept of their ideal self, ME AS I WANT TO BE, than they ranked the concept ME. The non-Indian students, on the other hand, ranked the concept ME closer to their ideal self, ME AS I WANT TO BE, than they ranked the concept WHITE PERSON. Thus, the Indian students appear to value their "Indianness" more than their individuality, while the non-Indian students appear to value their individuality more than their identity as "White Persons" (Helper and







Garfield, 1965, 822).

When achievement scores were taken into consideration, the high-achieving Indian students ranked the fourteen concepts in a similar manner as the non-Indian students while the low-achieving Indian students ranked the concepts in a dissimilar manner. In concluding this point, the researchers note "that semantic ratings can provide evidence of both similarities and differences between a dominant culture and different subgroups of a minority population" (Helper and Garfield, 1965, 821). More significant, differences between the high-achieving Indian students and the low-achieving Indian students tended to parallel the direction of the differences between the non-Indian students and the total Indian sample. These findings support the initial hypothesis that the semantic differential would offer a viable means of assessing the relative acculturation of Indian students.

Abu-Laban (1965, 1966) reports the findings of a study concerned with in-group orientation, self-conception, social background, and aspirations of Indian and non-Indian students attending an integrated high school in a suburb of Edmonton, Alberta.

Depth interviews were held with 95 students registered in the high school in the spring of 1962. Approximately half of the students interviewed constituted the total Indian population of the school during the research period. The non-Indian sample was selected by means of a stratified



random selection procedure to match the Indian population.

Even though responses to a modified version of the Bogardus social distance scale indicated that both the Indian and non-Indian students had favorable attitudes towards each other, the friendship patterns of both groups were generally in-group oriented (Abu-Laban, 1965, 189-190). However, there were some interesting differences between the two groups. The Indian students were much more likely to state that their best friends were of the opposite sex, while the non-Indian students were much more likely to state that their best friends were the same sex as themselves.

An analysis of the self-conception of both groups of students was derived from responses to the question, "Who am I?" For this analysis, each subject was asked to list 10 statements describing himself. A significant finding was that "approximately 60 percent of the Indian students identified with their ethnic group, whereas only 7 percent of the non-Indians identified either with the larger Canadian society or with a particular subgroup" (Abu-Laban, 1965, 190).

Another finding of the study was that approximately 25 percent of the Indian students indicated that they had aspirations to go to college or secure a white collar occupation as part of their self-concept while only one non-Indian student indicated similar aspirations as part of his self-concept (Abu-Laban, 1965, 192). Other questions which were directed specifically to pre-high school aspirations revealed that "about 46 percent of the Indian and 50





percent of the non-Indian (male) subjects were high aspirers; (and) about 82 percent of the Indian females, compared to 90 percent of their non-Indian counterparts, were high aspirers" (Abu-Laban, 1966, 119). Subsequent analysis indicated that the occupational aspirations of both the Indian and non-Indian students were fairly well established before they entered high school.

It was found that while there was a positive relationship between social class and aspirations, the aspirations of the female subjects did not seem to be related to social class background. Practically all of the girls had high aspirations, regardless of their ethnicity or father's occupation. It was also found that there were negligible differences between the aspirations of the Indian and the non-Indian students when sex was controlled.

In an analysis of the relationship between academic performance and aspirations it was clear that among students with a high academic record, the effects of sex, ethnicity, and family background tended to disappear. Among students with poor or average academic records, ethnicity, and working-class background appeared to be related to lower aspirations for both males and females. It was also found that differences in grade level was related to differences in aspirations.

While the proportion of highly motivated Indian students increased from 50 per cent among the tenth graders to 70 per cent among the twelfth graders, the proportion of highly motivated non-Indian students





declined from 88 per cent among the tenth graders to 77 per cent among the twelfth graders (Abu-Laban, 1966, 122).

There was no significant differences between the Indian and non-Indian students in respect to their participation in school organizations. However, it was noted that the non-Indian students held twice as many official positions in the organizations as the Indian students.

Zenter's studies (1962, 1963) explored the relationship between parental behavior, attitudes towards graduation, and attitudes towards post secondary education for a sample of 167 Indian and 639 non-Indian students attending high school in Alberta and Oregon.

Considerable differences between the Indian and non-Indian samples in respect to age, grade level, area of residency, and father's education were evident. The Indian subjects were considerably older and were concentrated in grades 9 and 10, while the non-Indian students, besides being younger, were much more evenly distributed from grades 9 to 12. In respect to father's education, the Indian fathers had significantly less education than the non-Indian fathers.

In response to the question, "How much pressure do your parents or guardians put on you to think about going on to further training?" significantly more Indian students than non-Indian students reported that they were subjected to "a great deal" of pressure. Even though more Indian students reported that there was a great deal of pressure put



on them to continue with post secondary education, slightly more non-Indian students reported that they would be "very disappointed" if they did not graduate from high school.

In response to the question, "How disappointed in you would your parents or guardians be if you didn't finish high school?" a significantly lower proportion of Alberta Indian students indicated that their parents or guardians would be "very upset". Most of the Oregon Indian students and the non-Indian students from both Oregon and Alberta reported that their parents would be "very upset" if they did not graduate. Subsequent analyses of responses to this question indicated that the degree of parental disappointment perceived by the student was related to parental behavior, ethnicity, and nationality.

A question designed to elicit the student's attitude toward further education was worded as follows: "How disappointed will you be if it turns out that you are unable to go on to further training after high school?" Nineteen percent of the Oregon Indian students, 71 percent of the Alberta Indian students, 43 percent of the Oregon non-Indian students, and 58 percent of the Alberta non-Indian students reported that they would be "very disappointed" if they could not continue with further training. It is noteworthy that while both groups of Indian students reported that they were subjected to "a great deal" of parental pressure to continue with post secondary training, significantly more Alberta Indian students indicated that they would be "very







disappointed" if they could not receive further training.

Friesen and Lyon (1970) conducted depth interviews with a sample of 60 Indian and 37 non-Indian adults in an attempt to identify and compare attitudes towards education, and cultural values. The Indian respondents represented five southern Alberta bands: Blackfoot, Blood, Peigan, Sarcee, and Stony. The non-Indian respondents were selected because they were familiar with Indian people.

Part of the study was an attempt to investigate attitudes towards the "direction" the education of Indian children should take in the future. Sixty-five percent of the Indian respondents expressed the attitude that Indian children should be educated to "be Indians", 12 percent suggested that Indian children should be educated to become "like white men", and 22 percent expressed the attitude that Indians should have the opportunity "to function in both worlds" (Friesen and Lyon, 1970, 19).

In response to a question concerning the educational needs of Indian children, a majority of both Indian and non-Indian respondents suggested that high school or college education was essential. Twenty-three percent of all respondents indicated that a high school education was a minimum and 43 percent felt that college education was mandatory. Eighty-one percent of the combined respondents felt that Indian students need as much education as other Canadian students (Friesen and Lyon, 1970, 19). Even though the majority of respondents acknowledged that Indian students



should have equal opportunities with other Canadian students, the Indian respondents felt that their children were not receiving an equal opportunity in integrated schools:

Some respondents expressed the thought that educational experiences children receive in integrated schools are not related to reserve life situations; others stated concerns about their children's reception in integrated settings; still others indicated concern that opportunities for Indian children might not be the same as for others after completing particular courses of training (Friesen and Lyon, 1970, 20).

Several questions were directed towards determining the aspirations of Indian people. The question, "What aspect of non-Indian culture might appeal to Indian people?" may be of specific interest. In response to this question, 35 percent of the Indian sample and 25 percent of the non-Indian sample indicated that education was the most salient aspect of non-Indian culture. Such other facilities as housing, clothing, and automobiles were seen by only a small percentage of respondents as being more important than education (Friesen and Lyon, 1970, 21).

From this data Friesen and Lyon (1970, 22) conclude that the Indian respondents had an entirely different value system than the non-Indian respondents. This general conclusion may be juxtaposed with the fact that both the Indian and the non-Indian respondents recognized the importance of education for the future of Indian children.

### Summary

There is a considerable amount of theoretical support





for the claim that ethnic groups are well integrated, cohesive groups with their own peculiar values, norms, beliefs, and attitudes. The theoretical conceptions often state that these attributes serve as prescriptions indicating the manner in which members of an ethnic group are expected to act in different situations, and in turn, provide methods of distinguishing in-group members from out-group members.

Even though the studies reviewed in this section have approached the measurement of attitudes from different theoretical and methodological perspectives, the findings may be summarized as follows: Indian students' are alienated from the school and the process of education (Hawthorn, 1967, 120), have less positive self-concepts (Bean, 1966; Hawthorn, 1967, 142; Wax, Wax, and Dumont, 1964), low aspirations (Abu-Laban, 1965, 192; Bean, 1966; Hawthorn, 1967, 118; Wolcott, 1967, 95), and have less positive attitudes towards education (Hawthorn, 1967, 139; Wax, Wax, and Dumont, 1964, 43; Wolcott, 1967, 95). On the other hand, Sheps (1970) found that Indian students accepted non-Indian attitudes. Indian students are less critical of the school (Harkins, 1968), less democratic (Bean, 1966), less tolerant of ambiguity (Bean, 1966), less inclined to pursue higher education (Bean, 1966), more concerned for the future (Bean, 1966), more submissive (Bean, 1966), more opposed to authoritarianism (Bean, 1966), more in-group oriented (Abu-Laban, 1965; Helper and Garfield, 1965), and subjected to more parental pressure to succeed (Zenter, 1962, 1963) than non-





Indian students. Also, Indian students have positive attitudes towards receiving their education in integrated schools (Hamilton, 1966).



## CHAPTER III

### THE RESEARCH METHODOLOGY

In this chapter the substantive and statistical hypotheses derived from the review of literature are stated. Following the hypotheses, the instrumentation, sample, data collection and the research design and statistical analysis are discussed.

#### The Hypotheses

The substantive hypotheses derived from the review of literature are that the non-Indian students have a more positive self-concept and more positive attitude towards education than the Indian students. The statistical and alternative hypotheses used to test the substantive hypotheses may be expressed as follows:

$$H_1 : M_A > M_B, \text{ at the .05 level, and}$$

$$H_0 : M_A = M_B,$$

where,  $M_A$  is the mean evaluative score of each concept for the non-Indian students and  $M_B$  is the mean evaluative score of each concept for the Indian students. The research hypotheses are expressed in terms of the statistical hypotheses.

#### Hypothesis 1

The non-Indian students have a significantly more posi-





tive self-concept than the Indian students. Evaluations of the concept ME indicates the self-concept of both the Indian and the non-Indian students.

### Hypothesis 2

The non-Indian students have significantly more positive attitudes towards education than the Indian students. Ten specific sub-hypotheses, based upon ten concepts judged by the students, are used to test this hypothesis.

Sub-hypothesis 2.01: The non-Indian students have a significantly more positive evaluation of the concept SCHOOL than the Indian students.

Sub-hypothesis 2.02: The non-Indian students have a significantly more positive evaluation of the concept BOOKS than the Indian students.

Sub-hypothesis 2.03: The non-Indian students have a significantly more positive evaluation of the concept ENGLISH than the Indian students.

Sub-hypothesis 2.04: The non-Indian students have a significantly more positive evaluation of the concept TEACHER than the Indian students.

Sub-hypothesis 2.05: The non-Indian students have a significantly more positive evaluation of the concept DISCIPLINE than the Indian students.

Sub-hypothesis 2.06: The non-Indian students have a significantly more positive evaluation of the concept EXAMINATION than the Indian students.



Sub-hypothesis 2.07: The non-Indian students have a significantly more positive evaluation of the concept READING than the Indian students.

Sub-hypothesis 2.08: The non-Indian students have a significantly more positive evaluation of the concept HOME-WORK than the Indian students.

Sub-hypothesis 2.09: The non-Indian students have a significantly more positive evaluation of the concept STUDYING than the Indian students.

Sub-hypothesis 2.10: The non-Indian students have a significantly more positive evaluation of the concept LEARNING than the Indian students.

### The Instrumentation

The semantic differential was developed as a generalized technique for extracting the mediational process of an individual's semantic conception. In using the evaluative dimension of the differential as a generalized attitude inventory, the scope of the research project, the purpose of the research, and the age of the subjects, dictate the concepts and scales used in the questionnaire.

### The Selection of Concepts

Osgood and his colleagues use the term 'concept' to refer to the 'stimulus' to which the subject respond by checking the bipolar scales of the semantic differential. A great variety of stimuli have been used. For example,





Osgood has conducted research in which the stimuli were TAT pictures (1957, 237-238), Rorschach cards (1957, 238-239), abstract paintings (1957, 291-295), abstract sculptures (1957, 301-302), and sonar signals (1957, 66-68). In terms of the theoretical reasoning, the stimuli judged on a semantic differential may be as varied as the signs and assigns which the subject comprehends. The major restriction placed upon the researcher is that the stimuli must be relevant to the study and understood by the subjects. As a general rule, the investigator will usually:

(a) try to select concepts for the meanings of which he can expect considerable individual differences, since this is likely to augment the amount of information gained from a limited number of concepts, (b) try to select concepts having a single, unitary meaning for the individual (e.g., MY IDEAL SELF, but not CASE or BUTTERFLIES AND MOTHS), since otherwise the subject may vacillate in what is being judged, and (c) try to select concepts which can be expected to be familiar to all of his subjects... (Osgood, Suci, and Tannenbaum, 1957, 77-78).

In attempting to comply with Osgood's recommendations, the concepts, ME, SCHOOL, BOOKS, ENGLISH (the language), TEACHER, DISCIPLINE, EXAMINATION, READING, HOMEWORK, STUDYING, and LEARNING were judged by the 53 Indian and 354 non-Indian junior high school students.

### The Selection of Scales

Osgood and his associates have set out four general criteria for the selection of scales for the semantic differential:





The first criterion for selecting scales is thus their factorial composition - we usually select about three scales to represent each factor, these being maximally loaded on that factor and minimally on others. The question probably arises as to why - when we know that the various factors have unequal weight (factor loadings) in meaningful judgments - do we not represent these factors in proportion to their weight? What we do is to provide the subject with a balanced space which he may actually use as he sees fit...

Another criterion in scale selection is relevance to the concepts being judged. For example, in judging a concept like ADLAI STEVENSON, one evaluative scale like beautiful-ugly may be comparatively irrelevant while another like fair-unfair may be highly relevant; on the other hand, just the reverse would be true for judging paintings....

Yet another criterion govern the selection of scales is their semantic stability for the concepts and subjects in a particular study. Whereas high-low can be expected to be stable across a set of sonar signals, it would not across a set of concepts which include both auditory and social concepts. Similarly, a scale like large-small is liable to strict denotative usage in judging physical objects like BOULDER and ANT, but is likely to be used connotatively in judging concepts like SIN and TRUMAN. Yet another criterion - and one for which we do not as yet have adequate data - is that scales should be linear between polar opposite and pass through the origin.... At present we merely assume that the scales defined by familiar and common opposites have these properties, but research on the problem needs to be done (Osgood, Suci, and Tannenbaum, 1957, 78-79).

In using the semantic differential as a generalized attitude inventory, the rationale for the selection of scales is much simpler. To index attitudes, scales which have high loadings on the evaluative factor across many concepts and negligible loadings on the other factors are usually selected. It is also recommended that a number of other scales be included in the study to obscure the purposes of the measurement. As was noted in Chapter II, the scales comprising the evalua-



tive dimension of meaning identify both the direction and intensity of an attitude as well as most other generalized attitude inventories.

Seven evaluative scales were used to identify the attitudes of the students towards all eleven concepts. The seven evaluative scales and their factor loadings are illustrated in Table 2. Along with the evaluative scales, there were three scales representing the potency dimension (Large-Small, Strong-Weak, and Heavy-Light), and three scales representing the activity dimension (Fast-Slow, Active-Passive, and Hot-Cold).

Although there are only seven degrees of intensity for each evaluative scale (see Figure 1), the sum of all the evaluative ratings for one concept constitutes the "attitude score" for that concept. In this study there are seven evaluative scales for each concept. Thus, summing the evaluative scores for the seven evaluative scales yields a range of possible attitude scores from 7 to 49. A score of 7 represents the most unfavorable attitude towards the concept under appraisal, while a score of 28 represents a neutral attitude, and a score of 49 represents the most favorable attitude towards the concept. There are 21 degrees of intensity in both the positive and negative directions from the neutral point (28).

The scales used in this research meet the criteria outlined by Osgood and his associates for the use of the semantic differential as a method of measuring attitudes:







TABLE 2  
 ROTATED FACTOR LOADINGS FOR THE EVALUATIVE  
 SCALES USED IN THIS STUDY

Scales	Rotated Factor Loadings		
	Evaluative	Potency	Activity
Good-Bad	.88	.05	.09
Beautiful-Ugly	.86	.09	.01
Kind-Cruel	.82	-.10	-.18
Pleasant-Unpleasant	.82	-.05	.28
Nice-Awful	.87	-.08	.19
Happy-Sad	.76	-.11	.00
Fair-Unfair	.83	.08	-.07

(Adapted from Osgood, Suci, and Tannenbaum, 1957, 37).



- (1) The seven evaluative scales have high factor loadings on the evaluative dimension and minimal loadings on the potency and activity dimensions;
- (2) The seven evaluative scales are relevant to all of the concepts being evaluated; and
- (3) Six additional scales representing the potency and activity dimensions are included to obscure the purposes of the research.

### Student Questionnaire

The first page of the questionnaire is a face sheet designed to solicit general information about each subject, such as age, sex, grade, place of residency, and ethnicity. (An example of the student questionnaire can be found in Appendix A.)

On the second page of the questionnaire the general instructions for differentiating the concepts is presented. These instructions are typical of the general instructions Osgood and his associates have used (Osgood, Suci, and Tannenbaum, 1957, 82-84). The general instructions to the semantic differential were designed to satisfy three purposes:

- (1) Orient each subject to the general nature of the semantic differential;
- (2) Illustrate the significance of each scale position and demonstrate the manner in which the scales are marked; and



- (3) Establish the general attitude the subjects are to take towards the task of evaluating the concepts.

#### Instructions for Answering the Student Questionnaire

The oral introduction and instructions given to each class consisted of two parts. The first part was a general introduction in which the researcher introduced himself as a graduate student in Sociology of Education at the University of Alberta. Following the personal introduction the questionnaires were passed out. Each student examined his own questionnaire to make sure it contained the proper number of pages. The students then answered the personal questions on the face sheet.

The second part consisted of a brief (oral) introduction to Osgood's theory of meaning and the general instructions for using the semantic differential. At this point, time was allotted for reading the instructions on page 2 of the questionnaire. Following the reading of the instructions, an example of the semantic differential was illustrated on the blackboard. Each degree of the intensity of evaluation in both the positive and negative directions were carefully explained. In the example, the concept LION was presented for differentiation on the three scales, Nice-Awful, Rich-Poor, and Good-Bad. It was explained that if half the class had recently immigrated from Africa and had personal experiences with lions, they may have different meanings for the concept than the Canadian students who had only seen lions





in zoos or movies. It was further explained, that there may also be differences between the African students and the Canadian students in the manner in which they judge the concept LION on the three scales illustrated on the board. Following this example, it was pointed out that the different groups of students present in the class may also have different meanings, and thus different evaluations, of the concepts presented in the questionnaire. For example, there may be differences in meaning for boys and girls, or students who live in town and students who live on farms.

When the introduction was concluded, the students were asked if they understood the manner in which the concepts were to be judged. Some questions were answered. The students were informed that if they had any difficulties while evaluating the concepts presented in the questionnaire, the researcher would assist them privately. Very few students required private assistance.

### The Sample

The sample of subjects for this study included all of the students enrolled in the Ponoka Junior High School during the month of January 1971. The students ranged in age from 12 to 16 years, with no significant differences in mean ages between either the sexes or ethnic groups. Table 3 gives the background information for the 407 students included in the study. Twelve students were dropped from the study because their questionnaires were incomplete.



TABLE 3

THE NUMBER OF STUDENTS INCLUDED IN THE STUDY,  
BY ETHNICITY, SEX, AND GRADE

Grade	Indian		Non-Indian		Total
	Male	Female	Male	Female	
7	10	10	61	62	143
8	9	10	64	57	140
9	9	5	47	63	124
Total	28	25	172	182	407

The sample of students were chosen from the Ponoka County School System for several reasons. First, there was a substantial number of Indian (Cree) students attending the junior high school from the Hobbema Indian Reservation. Second, there was a great deal of cooperation and interest shown by the School Committee on the Hobbema Reserve, the Superintendent of Schools, and the Principal of the junior high school. Third, the junior high school in the city of Ponoka was close enough to Edmonton to be easily accessible.

The decision to administer the inventory to junior high students was based on two basic reasons. First, in the province of Alberta, students are not allowed to quit school until they are 16 years of age or have completed grade 9. Thus, there may be a greater range of expressed attitudes





among junior high school students than among high school students. Second, junior high school students are old enough to read and understand the instructions and complete the inventory during a 33 minute class period.

It is not the researcher's intention to assume that the sample represented in this study is an adequate sample of Indian and non-Indian students for making grand assumptions about the attitudes of all Indian and non-Indian students. However, a study of this scope does appear to be adequate for the development of further insights and generalizations. It may be claimed that the Cree students enrolled in the Ponoka Junior High School are similar in many ways to other Cree junior high school students enrolled in integrated schools in Alberta, Saskatchewan, Manitoba, and Ontario. It may also be claimed that the non-Indian students are similar to other non-Indian students from well developed farming areas surrounding a community of a few thousand people. If these two assumptions can be granted, then the attitudes expressed by the students under investigation may be similar to the attitudes of a much larger population of junior high school students in Western Canada.

### Collection of Data

Arrangements were made with the Principal of the Ponoka Junior High School to administer the attitude inventory during the 11th, 12th, and 13th of January, 1971. The Principal drew up a timetable for the administration of the inventory



to the seventeen classes in the school. English language class periods were set aside for the purposes of this study. The Principal also made arrangements for those students who were absent either the 11th or 12th or complete the inventory on the 13th.

In each class, the introductory remarks took approximately 10 minutes. Following the introductions, the students had approximately 22 minutes to rate the concepts on 13 semantic differential scales. The few students who did not complete the inventory in the allotted time were later dropped from the study.

All responses were recorded directly on the inventory. The students were not requested to place their names on the inventory, thus assuring anonymity.

The total evaluative score for each of the 11 concepts was computed and recorded on the inventory by the researcher. The total score for each concept was later transferred to data sheets and then to IBM punch cards.

### Research Design and Statistical Analysis

The method of collecting the data for this study is commonly called survey research (Campbell and Katona, 1953) and is considered to be a legitimate branch of social research (Kerlinger, 1964, 393).

It is quite obvious that the studies reviewed in Chapter II have a simplistic research design, in the sense that they do not attempt to control for extraneous variables





which may influence attitudes. A simple means of controlling for the influence of extraneous variables is to incorporate them into the analyses as independent variables (Kerlinger, 1964, 285). Thus, in the analyses of self-concept the effects of sex and grade were controlled and in the analyses of attitudes towards education the effects of sex, grade, and self-concept were controlled. The additional analyses of the extraneous variables provided additional sources of variation which were also subjected to tests of significance. This study tested the hypotheses derived from the review of literature and also explored the effects of sex and grade level on the self-concept, and the effects of sex, grade level, and self-concept on the attitudes toward education. Both the testing of the research hypotheses and the exploration of the effects of the extraneous variables are included in the presentation and discussion of the findings.

A further explanation of the research design may be directed towards the statistical analyses used in the study. Three independent analyses of variance were used to test the research hypotheses. In the first analysis of variance, the effects of ethnicity and sex, and the interaction of ethnicity x sex were calculated for each of the concepts evaluated by the students. In the second analysis of variance, the effects of ethnicity and grade level, and the interaction of ethnicity x grade level were calculated for each of the concepts evaluated. In the third analysis of variance, the effects of ethnicity and self-concept and the interaction





of ethnicity x self-concept were calculated for each of the ten concepts related to education.

The analyses of variance used in this study independently tests the effects on the dependent variables, of each independent variable (ethnicity, sex, grade level, and self-concept) and three interaction effects (ethnicity x sex, ethnicity x grade level, and ethnicity x self-concepts). A more sophisticated statistical analysis, such as a three-way analysis of variance, was not used to analyze the data because dividing the sample into more sub-groups resulted in a violation of the assumption of equality of variance.<sup>1</sup>

A test of homogeneity<sup>2</sup> was calculated for a one-way analysis of variance which compared the mean evaluative scores of the Indian students with the mean evaluative scores of the non-Indian students for all concepts. This test indicated that the probabilities of violating the two basic assumptions underlying the analysis of variance were below

---

<sup>1</sup> Equality of variance is one of the basic assumptions underlying the analysis of variance and depends to a great degree upon the number of cases recorded in each cell in each analysis. If the number of cases in each cell are equal, then the effects of unequal variances are slight. But, where the number of cases in each cell are extremely unequal, as would be the case in a three-way analysis of variance of this data, then the probability of spurious F-ratios would be much higher.

<sup>2</sup> The test of homogeneity used was designed by Bartlett (1937) to test the equality of variances of the cases recorded within each cell of an analysis (Keeping, 1962, 214). This test also examines, to a lesser degree, the normality of the distribution of the cases recorded within each cell (Box, 1953).



the .05 level for all of the concepts evaluated.

Two different programs for the IBM 360 computer were used in the analyses of the data. The first program (ANOV15: Division of Educational Research Services, University of Alberta) computed the means, standard deviations, one-way analysis of variance, and Bartlett's analysis of homogeneity of variance on the evaluative scores of all the concepts for the main independent variable (ethnicity). The second program (ANOV22: Division of Educational Research Services, University of Alberta) was run three times. The first run computed the means, variances, and two-way analyses of variances by ethnicity and sex. The second run computed the means, variances, and two-way analyses of variances by ethnicity and grade level, and the third run computed the means, variances, and two-way analyses of variances by ethnicity and self-concept. In all four runs, the computer calculated the levels of significance.

### Summary

In this chapter five separate aspects of the research methodology were presented. The chapter included discussions of the hypotheses, the various aspects of the instrumentation, the sample of students, the method of data collection, and the research design and statistical analyses.







## CHAPTER IV

### THE PRESENTATION OF THE FINDINGS

In this chapter, the self-concept and the attitudes towards education of the Indian and the non-Indian students are compared. Following the comparisons, the salient features exposed in the analyses are discussed.

#### The Self-Concept of the Indian and the Non-Indian Students

In order to control the effects of sex and grade level, two factorial analyses of variances were used to analyze the independent and interactive effects of ethnicity and sex, and ethnicity and grade, on the self-concept.

#### Hypothesis 1

Hypothesis 1 states: The non-Indian students have a significantly more positive self-concept than the Indian students.

Table 4 reveals that when the total sample of students is divided by ethnicity and sex there are pervasive differences in mean evaluative scores between the two ethnic groups and only slight differences between the sexes. The analysis of variance reported in this table shows that the non-Indian students have a significantly more positive self-concept than the Indian students.

Table 5 reveals that when the total sample of students



TABLE 4

MEANS, STANDARD DEVIATIONS, AND SIGNIFICANCE OF DIFFERENCES OF  
THE SELF-CONCEPT BY ETHNICITY AND SEX

Concept	Indian		Non-Indian		Analysis of Variance*		
	Males	Females	Males	Females	Between Ethnic Groups	Between Sexes	Interaction
ME	33.07 (5.31) <sup>†</sup>	34.52 (5.65)	36.31 (5.56)	36.79 (6.18)	.001	N.S.	N.S.
N =	28	25	172	182			

\* Two-way factorial analysis of variance.

<sup>†</sup> Standard deviations.



TABLE 5  
MEANS, STANDARD DEVIATIONS, AND SIGNIFICANCE OF DIFFERENCES OF  
THE SELF-CONCEPT, BY ETHNICITY AND GRADE

Concept		Indian				Non-Indian			Analysis of Variance*		
		Gr. 7		Gr. 8		Gr. 9		Gr. 9	Between Ethnic Groups	Between Grades	Inter-action
		Gr. 7	Gr. 8	Gr. 8	Gr. 9	Gr. 9	Gr. 7				
ME	35.00 (6.04) <sup>†</sup>	33.15 (5.53)	33.78 (4.47)	37.70 (5.84)	36.11 (6.00)	35.76 (5.67)			.001	.011	N.S.
N =	20	19	14	123	121	110					

\* Two-Way factorial analysis of variance.

<sup>†</sup> Standard deviations.





is divided by ethnicity and grade level there are significant differences at the .001 level between the two ethnic groups and significant differences at the .011 level between the three grade levels.<sup>1</sup>

On the basis of the data presented in Tables 4 and 5, the hypothesis that the non-Indian students have a significantly more positive self-concept than the Indian students is accepted.

#### The Attitudes Towards Education of the Indian and the Non-Indian Students

In order to control the effects of sex, grade, and self-concept, three factorial analyses of variances were used to analyze the independent and interactive effects of ethnicity and sex, ethnicity and grade, and ethnicity and self-concept.<sup>2</sup>

---

<sup>1</sup> It has been pointed out by Fisher (1947), McHugh and Ellis (1955), and Stanley (1957) that the testing of pairs of means following a multiple classification analysis is incorrect unless differences between specific pairs of means were hypothesized in advance. In this analysis, grade level is a control variable with no hypothesized relationship to self-concept. Thus, the testing of the significance of the differences between specific grade levels (i.e., grade 7 vs. grade 8, grade 8 vs. grade 9, and grade 7 vs. grade 9) is not conducted.

<sup>2</sup> For the purposes of the analyses of ethnicity and self-concept, the students with self-concept scores below the mean for their ethnic group (33.75 for the Indian students and 36.55 for the non-Indian students) were classified as low self-concepts, and the students with self-concept scores above the mean were classified as high self-concepts.



## Hypothesis 2

Hypothesis 2 states: The non-Indian students have significantly more positive attitudes towards education than the Indian students. Ten specific sub-hypotheses, based upon ten concepts judged by the students, were examined in testing this hypothesis.

## Attitudes Towards Schools

Sub-hypothesis 2.01 states: The non-Indian students have a significantly more positive evaluation of the concept SCHOOL than the Indian students.

Table 6 presents the mean evaluative scores for this concept by ethnicity and sex. It is evident from this table that, although the Indian students have a slightly more positive evaluation of SCHOOL than the non-Indian students, the differences in mean evaluative scores between the ethnic groups and between the sexes are not significant.

Table 7 shows that when the total sample of students is divided by ethnicity and grade, there are no statistically significant differences between the two ethnic groups and there are statistically significant differences between the three grade levels at the .0001 level.<sup>3</sup>

Table 8 reveals that when the total sample of students

---

<sup>3</sup> In accordance with the proposition presented in footnote 1 of this chapter the testing of the significance of the differences between specific grade levels is not conducted.





TABLE 6

MEANS, STANDARD DEVIATIONS, AND SIGNIFICANCE OF DIFFERENCES FOR  
THE EVALUATIVE SCORES OF TEN CONCEPTS, BY ETHNICITY AND SEX

Concepts	Analysis of Variances*					
	Indian		Non-Indian		Between Ethnic Groups	Between Sexes
	Males	Females	Males	Females		
SCHOOL	32.93 (7.15) <sup>†</sup>	33.44 (7.77)	29.92 (9.44)	31.69 (8.80)	N.S.	N.S.
BOOKS	32.86 (6.44)	34.40 (7.48)	33.45 (7.12)	34.41 (6.39)	N.S.	N.S.
ENGLISH	32.71 (6.98)	36.24 (6.00)	35.16 (8.19)	37.33 (5.96)	N.S.	.001
TEACHER	29.36 (9.30)	32.88 (8.94)	29.87 (10.72)	33.38 (9.87)	N.S.	.001
DISCIPLINE	28.21 (7.04)	31.00 (7.84)	27.85 (8.56)	27.98 (8.98)	N.S.	N.S.



TABLE 6 (CONTINUED)

Concepts	Analysis of Variance			
	Indian		Non-Indian	
	Males	Females	Males	Females
EXAMINATION	24.07 (9.51)	26.56 (10.1)	25.80 (9.55)	23.99 (9.76)
READING	33.96 (6.11)	37.28 (6.76)	36.24 (8.08)	39.67 (6.83)
HOMEWORK	22.04 (9.50)	23.76 (10.81)	20.38 (9.83)	22.04 (10.44)
STUDYING	26.00 (7.98)	29.64 (8.65)	27.30 (8.56)	27.18 (9.28)
LEARNING	32.04 (7.79)	35.08 (7.96)	35.50 (8.46)	36.73 (7.82)
N =	28	25	172	182

\* Two-way factorial analyses of variances.

† Standard deviations.



TABLE 7

MEANS, STANDARD DEVIATIONS, AND SIGNIFICANCE OF DIFFERENCES FOR  
THE EVALUATIVE SCORES OF TEN CONCEPTS, BY ETHNICITY AND GRADE

Concepts	Indian						Non-Indian			Analysis of Variance*		
	Gr. 7			Gr. 8			Gr. 9			Between Ethnic Groups	Between Grades	Inter- action
	Gr. 7	Gr. 8	Gr. 9	Gr. 7	Gr. 8	Gr. 9	Gr. 7	Gr. 8	Gr. 9			
SCHOOL	36.05 (5.83) <sup>†</sup>	30.74 (9.46)	32.36 (4.71)	33.61 (8.24)	28.87 (9.59)	29.88 (8.94)	N.S.			N.S.	.0001	N.S.
BOOKS	36.15 (7.29)	32.05 (7.03)	32.00 (5.14)	34.46 (6.96)	32.75 (7.39)	34.68 (5.56)	N.S.			N.S.	.026	N.S.
ENGLISH	36.55 (6.66)	32.95 (6.86)	33.21 (6.19)	36.70 (7.19)	36.09 (7.59)	36.01 (6.80)	N.S.			N.S.	N.S.	N.S.
TEACHER	35.25 (7.54)	25.37 (9.17)	32.64 (7.93)	34.28 (9.82)	29.17 (11.1)	31.51 (9.57)	N.S.			N.S.	.0001	N.S.
DISCIPLINE	33.80 (5.64)	26.37 (8.16)	27.77 (6.29)	28.38 (10.1)	26.71 (8.40)	28.73 (7.19)	N.S.			N.S.	.039	N.S.





TABLE 7 (CONTINUED)

Concepts	Indian						Non-Indian			Analysis of Variance		
	Gr. 7.			Gr. 8			Gr. 9			Between Ethnic Groups	Between Grades	Inter-action
	Gr. 7.	Gr. 8	Gr. 9	Gr. 7	Gr. 8	Gr. 9	Gr. 7	Gr. 8	Gr. 9			
EXAMINATION	27.30 (8.89)	24.21 (10.6)	23.71 (10.0)	26.91 (9.96)	24.13 (9.21)	23.40 (9.57)				N.S.	.006	N.S.
READING	36.65 (6.18)	36.32 (5.81)	32.86 (7.74)	39.50 (8.23)	36.52 (7.58)	39.08 (6.81)				.027	N.S.	N.S.
HOMEWORK	24.30 (10.7)	21.32 (10.2)	22.86 (9.27)	21.31 (10.0)	20.55 (9.75)	21.91 (9.76)				N.S.	N.S.	N.S.
STUDYING	28.00 (9.50)	28.37 (7.50)	26.43 (8.46)	28.60 (9.43)	26.45 (8.57)	26.60 (8.61)				N.S.	N.S.	N.S.
LEARNING	35.35 (7.85)	33.05 (8.26)	31.36 (7.56)	37.27 (8.51)	34.73 (8.55)	36.41 (7.07)				.025	.034	N.S.
N =	20	19	14	123	121	110						

\* Two-way factorial analyses of variances.

† Standard deviations.



TABLE 8

MEAN, STANDARD DEVIATIONS AND SIGNIFICANCE OF DIFFERENCES FOR  
THE EVALUATIVE SCORES OF TEN CONCEPTS, BY ETHNICITY AND SELF-CONCEPT

Concepts	Analyses of Variance*				Inter- action		
	Indian		Non-Indian			Between Ethnic Groups	Between Levels of Self-Concept
	Low	High	Low	High			
SCHOOL	29.35 (7.16) <sup>†</sup>	36.10 (6.19)	28.74 (8.84)	32.54 (9.06)	N.S.	.0001	N.S.
BOOKS	29.65 (6.21)	36.60 (5.91)	32.80 (6.61)	34.88 (6.74)	N.S.	.0001	.014
ENGLISH	31.17 (6.44)	36.83 (5.91)	34.30 (7.09)	37.89 (6.90)	N.S.	.0001	N.S.
TEACHER	25.91 (7.47)	34.93 (8.57)	29.75 (10.29)	33.25 (10.19)	N.S.	.0001	N.S.
DISCIPLINE	26.57 (6.67)	31.80 (7.39)	26.77 (8.50)	28.86 (8.88)	N.S.	.004	N.S.
EXAMINATION	22.22 (8.27)	27.57 (10.34)	24.35 (9.64)	25.29 (9.72)	N.S.	N.S.	N.S.





TABLE 8 (CONTINUED)

Concepts	Analyses of Variance					Inter- action	
	Indian		Non-Indian		Between Ethnic Groups		
	Low	High	Low	High			
READING	32.87 (6.51)	37.57 (5.96)	36.18 (8.15)	39.49 (6.89)	.02	.0001	N.S.
HOMEWORK	21.17 (8.42)	24.13 (11.8)	20.77 (10.15)	21.61 (10.19)	N.S.	N.S.	N.S.
STUDYING	24.74 (7.23)	30.00 (8.68)	26.26 (8.77)	28.04 (9.00)	N.S.	.011	N.S.
LEARNING	27.96 (5.79)	37.70 (6.72)	34.04 (8.07)	37.84 (7.84)	.017	.0001	.01
N =	23	30	159	195			

\* Two-way factorial analyses of variances.

+ Standard deviations.

Note: Self-concept was determined by the evaluative scores for the concept ME. The students below the mean (33.75 for Indian students and 36.55 for the non-Indian students) were classified as having low self-concepts and the students above the mean were classified as having high self-concepts.



is divided by ethnicity and self-concept, the students from both ethnic groups with high self-concepts have more positive evaluations of the concept SCHOOL than the students with low self-concepts. An interesting point to note is that the Indian students with high self-concepts have a much more positive evaluation of SCHOOL than the non-Indian students with high self-concepts. The analysis of variance presented in this table reveals that the differences in mean evaluative scores between the ethnic groups are not significant and the differences in mean evaluative scores between the two levels of self-concept are significant at the .0001 level.<sup>4</sup>

On the basis of the data presented in Tables 6, 7, and 8, the sub-hypothesis that the non-Indian students have a significantly more positive evaluation of the concept SCHOOL than the Indian students is rejected.

#### Attitudes Towards Books

Sub-hypothesis 2.02 states: The non-Indian students have a significantly more positive evaluation of the concept BOOKS than the Indian students.

An examination of Table 6 reveals that when the total sample of students is divided by ethnicity and sex, the female

---

<sup>4</sup> A discussion of the importance of self-concept as well as the other two control variables (sex and grade) is presented in the section entitled 'A Discussion of the Findings'. The general trends evident in the data are also discussed in that section.





students from both ethnic groups have slightly more positive evaluations of BOOKS than the male students. The analysis of variance reveals that neither the differences between the two ethnic groups nor the differences between the sexes are statistically significant.

Table 7 presents the mean evaluative scores and an analysis of variance for this concept by ethnicity and grade. This table shows that for the concept BOOKS there are no significant differences in mean evaluative scores for the comparison between the ethnic groups and there are significant differences at the .026 level for the comparisons between the grades.

Table 8 reveals that when the total sample of students is divided by ethnicity and self-concept, the students from both ethnic groups with high self-concepts have more positive evaluations of the concept BOOKS than the students with low self-concepts. The analysis of variance reported in this table reveals that the differences in mean evaluative scores between the two ethnic groups are not significant, the differences between the two levels of self-concept are statistically significant at the .0001 level, and the interactions of ethnicity and self-concept are statistically significant at the .014 level.

Thus, the sub-hypothesis that the non-Indian students have a significantly more positive evaluation of the concept BOOKS than the Indian students is rejected.





### Attitudes Towards English

Sub-hypothesis 2.03 states: The non-Indian students have a significantly more positive evaluation of the concept ENGLISH than the Indian students.

Table 6 reveals that when the total sample of students is divided by ethnicity and sex, the female students from both ethnic groups have more positive evaluations of ENGLISH than the male students. The analysis of variance reported in this table reveals that the differences in mean evaluative scores between the Indian and the non-Indian students are not statistically significant, and the differences between the sexes are statistically significant at the .001 level.

Table 7 presents the mean evaluative scores and an analysis of variance for this concept by ethnicity and grade. This table shows that for the concept ENGLISH there are no significant differences in mean evaluative scores for either the comparison between the ethnic groups or the comparison between the grades.

Table 8 reveals that when the total sample of students is divided by ethnicity and level of self-concept, the students from both ethnic groups with high self-concepts have more positive evaluations of the concept ENGLISH than the students with low self-concepts. The analysis of variance reveals that the differences in mean evaluative scores between the ethnic groups are not significant and the differences between the two levels of self-concept are statistically significant at the .0001 level.



Thus, the sub-hypothesis that the non-Indian students have a significantly more positive evaluation of the concept ENGLISH than the Indian students is rejected.

#### Attitudes Towards Teacher

Sub-hypothesis 2.04 states: The non-Indian students have a significantly more positive evaluation of the concept TEACHER than the Indian students.

Table 6 presents the mean evaluative scores for this concept by ethnicity and sex. It is evident from this table that the female students from both ethnic groups have more positive evaluations of TEACHER than the male students. The analysis of variance presented in this table reveals that the differences in mean evaluative scores between the two ethnic groups are not statistically significant and the differences between the two sexes are statistically significant at the .001 level.

Table 7 shows that when the total sample of students is divided by ethnicity and grade, the differences in mean evaluative scores between the ethnic groups are not statistically significant, and the differences between the three grades are significant at the .0001 level.

An examination of Table 8 reveals that when the total sample of students is divided by ethnicity and level of self-concept, the students from both ethnic groups with high self-concepts have more positive evaluations of the concept TEACHER than the students with low self-concepts. The







analysis of variance reveals that the differences in mean evaluative scores between the ethnic groups are not statistically significant and the differences between the two levels of self-concept are statistically significant at the .0001 level.

On this basis, the sub-hypothesis that the non-Indian students have a significantly more positive evaluation of the concept TEACHER than the Indian students is rejected.

#### Attitudes Towards Discipline

Sub-hypothesis 2.05 states: The non-Indian students have a significantly more positive evaluation of the concept DISCIPLINE than the Indian students.

Table 6 presents the mean evaluative scores for this concept by ethnicity and sex. It is evident from this table that the differences in mean evaluative scores between the ethnic groups and between the sexes are not statistically significant.

Table 7 shows that when the total sample of students is divided by ethnicity and grade, the differences in mean evaluative scores between the ethnic groups are not statistically significant and the differences between the three grades are statistically significant at the .039 level.

Table 8 reveals that when the total sample of students is divided by ethnicity and self-concept the students from both ethnic groups with high self-concepts have more positive evaluations of the concept DISCIPLINE than the students with



low self-concepts. The analysis of variance presented in this table reveals that the differences in mean evaluative scores between the ethnic groups are not significant and the differences in mean evaluative scores between the two levels of self-concept are statistically significant at the .004 level.

On the basis of the data presented in Tables 6, 7, and 8, the sub-hypothesis that the non-Indian students have a significantly more positive evaluation of the concept DISCIPLINE than the Indian students is rejected.

#### Attitudes Towards Examination

Sub-hypothesis 2.06 states: The non-Indian students have a significantly more positive evaluation of the concept EXAMINATION than the Indian students.

Table 6 reveals that when the total sample of students is divided by ethnicity and sex, the differences in mean evaluative scores between the ethnic groups and between the sexes are not statistically significant.

Table 7 shows that when the total sample of students is divided by ethnicity and grade, the differences in mean evaluative scores between the ethnic groups are not statistically significant and the differences between the three grades are statistically significant at the .006 level.

Table 8 presents the mean evaluative scores for this concept by ethnicity and self-concept. It is evident from this table that the differences in mean evaluative scores





between the two ethnic groups and the two levels of self-concept are not statistically significant.

On the basis of the data presented, the sub-hypothesis that the non-Indian students have a significantly more positive evaluation of the concept EXAMINATION than the Indian students is rejected.

### Attitudes Towards Reading

Sub-hypothesis 2.07 states: The non-Indian students have a significantly more positive evaluation of the concept READING than the Indian students.

An examination of Table 6 reveals that when the total sample of students is divided by ethnicity and sex, the female students from both ethnic groups have slightly more positive evaluations of READING than the male students. The analysis of variance presented in this table shows that there are significant differences at the .032 level for the comparison between ethnic groups and significant differences at the .0001 level for the comparison between the sexes.

Table 7 shows that when the total sample of students is divided by ethnicity and grade, the differences in mean evaluative scores between the ethnic groups are significant at the .027 level and the differences between the three grades are not statistically significant.

Table 8 reveals that when the total sample of students is divided by ethnicity and self-concept, the students from both ethnic groups with high self-concepts have more positive





evaluations of the concept READING than the students with low self-concepts. The analysis of variance reported in this table reveals that the differences in mean evaluative scores between the two ethnic groups are statistically significant at the .02 level and the differences between the two levels of self-concept are significant at the .0001 level.

Thus, the sub-hypothesis that the non-Indian students have a significantly more positive evaluation of the concept READING than the Indian students is accepted.

#### Attitudes Towards Homework

Sub-hypothesis 2.08 states: The non-Indian students have a significantly more positive evaluation of the concept HOMEWORK than the Indian students.

Table 6 presents the mean evaluative scores for this concept by ethnicity and sex. The analysis of variance presented in this table reveals that the differences in mean evaluative scores between the two ethnic groups and between the two sexes are not statistically significant.

Table 7 shows that when the total sample of students is divided by ethnicity and grade, the differences in mean evaluative scores between the ethnic groups and the differences between the three grades are not significant.

Table 8 presents the mean evaluative scores for this concept by ethnicity and self-concept. It is evident from this table that the differences in mean evaluative scores between the two ethnic groups and between the two levels of



self-concept are not statistically significant.

Thus, the sub-hypothesis that the non-Indian students have a significantly more positive evaluation of the concept HOMEWORK than the Indian students is rejected.

### Attitudes Towards Studying

Sub-hypothesis 2.09 states: The non-Indian students have a significantly more positive evaluation of the concept STUDYING than the Indian students.

Table 6 presents the mean evaluative scores for this concept by ethnicity and sex. It is evident from the analysis of variance presented in this table that the differences in mean evaluative scores between the ethnic groups and between the sexes are not statistically significant.

Table 7 shows that when the total sample of students is divided by ethnicity and grade, differences in mean evaluative scores between the ethnic groups and between the three grade levels are not statistically significant.

Table 8 reveals that when the total sample of students is divided by ethnicity and self-concept, the students from both ethnic groups with high self-concepts have more positive evaluations of STUDYING than the students with low self-concepts. The analysis of variance presented in this table reveals that the differences in mean evaluative scores between the ethnic groups are not significant and the differences in mean evaluative scores between the two levels of self-concept are statistically significant at the .011 level.







Thus, the sub-hypothesis that the non-Indian students have a significantly more positive evaluation of the concept STUDYING than the Indian student is rejected.

### Attitudes Towards Learning

Sub-hypothesis 2.10 states: The non-Indian students have a significantly more positive evaluation of the concept LEARNING than the Indian students.

Table 6 reveals that when the total sample of students is divided by ethnicity and sex, the non-Indian students have slightly more positive evaluations of LEARNING than the Indian students. The analysis of variance shows that there are significant differences at the .03 level for the comparison between the ethnic groups and there are no significant differences for the comparison between the sexes.

Table 7 shows that when the total sample of students is divided by ethnicity and grade, differences in mean evaluative scores between the ethnic groups are significant at the .025 level and the differences between the three grades are significant at the .034 level.

Table 8 reveals that when the total sample of students is divided by ethnicity and self-concept, the students from both ethnic groups with high self-concepts have more positive evaluations of the concept LEARNING than the students with low self-concepts. The analysis of variance reported in this table reveals that the differences in mean evaluative scores between the two ethnic groups are significant at the



.017 level, the differences between the two levels of self-concept are significant at the .0001 level, and the interactions of ethnicity and self-concept are statistically significant at the .01 level.

Thus, the sub-hypothesis that the non-Indian students have a significantly more positive evaluation of the concept LEARNING than the Indian students is accepted.

#### A Summary of the Attitudes Towards Education of the Indian and the Non-Indian Students

The evidence presented in the analyses of hypothesis 2 reveals that for the comparison between the ethnic groups, there are statistically significant differences in the predicted direction, on two of the ten concepts evaluated. The non-Indian students have a significantly more positive evaluation of the concepts READING and LEARNING than the Indian students. For the eight concepts, SCHOOL, BOOKS, ENGLISH, TEACHER, DISCIPLINE, EXAMINATION, HOMEWORK, and STUDYING, the differences in mean evaluative scores between the Indian and the non-Indian students are not statistically significant.

On the basis of this data, the hypothesis that the non-Indian students have more positive attitudes towards education than the Indian students is only partly accepted.

#### A Discussion of the Findings

A discussion of the salient features exposed in the preceeding analyses is very much in order, both because of





its sociological importance and because of the relative ease with which ethnic differences may be used to support educational policies.

The finding that lead to the acceptance of the hypothesis that the non-Indian students had a more positive self-concept than the Indian students (based upon statistically significant differences in mean evaluative scores for the concept ME) were only differences in the intensity rather than the direction of the evaluations:<sup>5</sup> both the Indian and the non-Indian students had positive self-concepts. This finding contrasts with the findings of Hawthorn's (1967, 142) study. He reports that Indian students have negative self-concepts. This contrasting evidence should be examined more closely in future research.

The findings which lead to the partial acceptance of the hypothesis that the non-Indian students had more positive attitudes towards education than the Indian students was based upon statistically significant differences for two of the ten concepts evaluated in testing this postulate. The non-Indian students had significantly more positive evaluations of the concepts READING and LEARNING than the Indian students. There were no significant differences between the two ethnic groups' evaluations of the eight concepts, SCHOOL,

---

<sup>5</sup> Recall from Chapter II that the intensity of an evaluation is indicated by the distance between a specific evaluative score and the theoretical neutral point (28), and the direction of an evaluation (favorable or unfavorable) is indexed by the polar terms selected.





BOOKS, ENGLISH, TEACHER, DISCIPLINE, EXAMINATION, HOMEWORK, and STUDYING. It is important to note that, for the comparisons between the sexes, there were significant differences on three of the ten concepts (ENGLISH, TEACHER, and READING); for the comparisons between the three grades there were significant differences on six of the ten concepts (SCHOOL, BOOKS, TEACHER, DISCIPLINE, EXAMINATIONS, and LEARNING); and for the comparison between the two levels of self-concept there were significant differences on eight of the ten concepts (SCHOOL, BOOKS, ENGLISH, TEACHER, DISCIPLINE, READING, STUDYING, and LEARNING). Differences in sex, grade, and self-concept all account for a greater amount of variance on more concepts than differences in ethnicity. In fact, the evidence indicates that differences in self-concept and grade level are far more significant than differences in sex and ethnicity in explaining variances in junior high school students' attitudes towards education.

Another noteworthy feature was that the Indian students with high self-concepts had more positive evaluations of seven concepts (SCHOOL, BOOKS, TEACHER, DISCIPLINE, EXAMINATION, HOMEWORK, and STUDYING) than the non-Indian students with high self-concepts.

The evidence presented in this study indicates that there are great similarities between the Indian and the non-Indian students' self-concepts and attitudes towards education. These similarities are much greater than were expected. The Indian students' positive self-concepts and the similarities



between the Indian and the non-Indian students' attitudes towards education may represent the anticipatory socialization of the Indian students to the non-Indian society. This interpretation may be particularly relevant for the Indian students who have high self-concepts. Role aspirants often parrot the attitudes, values, and emotional responses which are common to the more experienced occupants of the role positions (Secord and Backman, 1964, 541-542). Thus, in accordance with their aspirations the Indian students may have found it necessary to develop positive self-concepts and similar attitudes towards education as their non-Indian classmates.





## CHAPTER V

### SUMMARY, IMPLICATIONS, AND SUGGESTIONS FOR FURTHER STUDIES

#### Summary

##### The Problem

The integration of Indian students into the public schools of Canada is revealed in microcosm by the integration of Alberta Indian students into the provincial public school systems. Even though the program of integrating Indian students into the public school systems has been in operation for more than twenty years very little research has been directed towards assessing and comparing the Indian students and the non-Indian students enrolled in integrated schools. Thus, this study was designed to compare the self-concepts and the attitudes towards education of a sample of Indian and non-Indian students enrolled in an integrated junior high school.

##### The Hypotheses

Past research indicated that the following hypotheses were tenable:

- (1) The non-Indian students have a significantly more positive self-concept than the Indian students; and
- (2) The non-Indian students have significantly more positive attitudes towards education than the Indian students.



### The Sample

The subjects selected for this study were the total student body enrolled in the Ponoka Junior High School during the month of January 1971. Fifty-three Cree Indian students and 354 non-Indian students, in grades seven, eight, and nine, participated.

It is not the researcher's intention to assume that a sample of this size and nature represents an adequate sample of Indian and non-Indian students for deriving grand generalizations about the self-concepts and the attitudes of all Indian and non-Indian students. On the other hand, the sample may be adequate for the development of further insights about other Cree Indian and other non-Indian junior high school students enrolled in other Western Canadian schools. Of course, the generalizations which accrue from this study must stand the test of further empirical research.

### The Research Methodology

The theoretical framework for this study was derived from The Measurement of Meaning by Charles Osgood, George Suci, and Percy Tannenbaum (1957). This text proposes a theory and technique for measuring semantic meaning. The technique, called the semantic differential, has been successfully used to identify three major dimensions of meaning; the evaluative dimension, the potency dimension, and the activity dimension. The evaluative dimension is considered to be specifically an attitudinal dimension because the in-





dividual scales composing that dimension definitely measured the intensity and direction of an individual's disposition towards the concepts under appraisal.

As in other studies of this type, the self-concept and the attitude towards education of the students have been obtained by measuring their responses to a series of written cue words. The students' self-concept, as measured and discussed in this study, was elicited by the evaluative dimension of the semantic differential for the concept ME, and the students' attitudes towards education were elicited by the evaluative dimension for the concepts SCHOOL, BOOKS, ENGLISH, TEACHER, DISCIPLINE, EXAMINATION, READING, HOMEWORK, STUDYING, and LEARNING. The evaluative scores for these concepts were not considered to be inclusive of all the possible dimensions of the students' self-concept or all the possible attitudes that students may hold concerning education.

In an attempt to provide some statistical control, extraneous variables were incorporated into the analyses of variances as independent variables. Thus, in the analyses of self-concepts, the effects of sex and grade level were controlled, and in the analyses of attitudes towards education the effects of sex, grade level, and self-concept were controlled. The additional analyses provided additional sources of variation which were subjected to tests of significance. Thus, besides testing for differences between the Indian and the non-Indian students, other, within ethnic group, differences were also examined.





### The Findings

The findings of the study indicated that both the Indian and the non-Indian students had positive self-concepts, but the non-Indian students had a significantly more positive self-concept than the Indian students. The analyses of self-concept also revealed that there were significant differences between the grade levels but no significant differences between the sexes. On the bases of these analyses, the hypothesis that the non-Indian students have a significantly more positive self-concept than the Indian students was accepted.

The evidence presented in the analyses of the attitudes towards education revealed that there were statistically significant differences, in the predicted direction, between the Indian and the non-Indian students on two of the ten concepts evaluated. The non-Indian students had a significantly more positive evaluation of the concepts READING and LEARNING than the Indian students. For the concepts SCHOOL, BOOKS, ENGLISH, TEACHER, DISCIPLINE, EXAMINATION, HOMEWORK, and STUDYING, the differences in mean evaluative scores between the Indian and the non-Indian students were not statistically significant. Statistically significant differences in the evaluations, for the comparisons between the sexes were evident for the concepts ENGLISH, TEACHER, and READING. There were also statistically significant differences for the comparisons between the three grades for the concepts SCHOOL, BOOKS, TEACHER, DISCIPLINE, EXAMINATION,



and LEARNING, and there were statistically significant differences between the levels of self-concept for the concepts SCHOOL, BOOKS, ENGLISH, TEACHER, DISCIPLINE, READING, STUDYING, and LEARNING. On the bases of these analyses the hypotheses that the non-Indian students have significantly more positive attitudes towards education than the Indian students was only partly accepted.

A coup d'oeil of the findings of this study brings to attention some thought provoking discoveries. For example, in both the analyses of self-concept and the analyses of attitudes towards education, the differences in mean evaluative scores between the Indian and the non-Indian students were merely differences in the intensity rather than the direction of the evaluations. Also, if the independent variable and the control variables are ranked, differences in sex, grade level, and self-concept account for a greater amount of variance on more concepts used to measure attitudes towards education than differences in ethnicity. In light of this evidence, the study concludes that ethnicity is not the most important variable for explaining differences in junior high school students' attitudes. For the analyses of self-concept, the differences between the ethnic groups were greater than the differences within the ethnic groups, and for the analyses of attitudes towards education, the differences within the ethnic groups were greater than the differences between the ethnic groups.







### Implications of the Study

Now that the findings of the study have been summarized, questions may be raised concerning the implications of the study for both the hypotheses which animated the research and educational policy.

On one level, this study may be considered polemical, in that it refutes, to a considerable degree, the findings of the Hawthorn study (1967) which portrays all Indian students as alienated individuals with negative self-concepts, and negative attitudes towards education. Of course some Indian students have negative attitudes, but so do some of their non-Indian classmates. Further studies may help resolve the inconsistencies between the findings of this study and the findings of the Hawthorn study.

On another level, this study has implications for educational policy and educational administration. If the results of this study are valid, it may be important for administrators, teachers, and parents to recognize that there are greater variations within ethnic groups than between ethnic groups in their attitudes towards education. It may also be important for administrators, teachers, and parents to know that the child's self-concept is positively related to his attitudes towards education. This finding has far-reaching implications indeed. If positive attitudes is a goal of education, then some method of instilling positive self-concepts in children may assist in improving their attitudes. Improvements in self-concept and attitudes may



or may not affect the overt behavior of the students within the classroom. If the students' self-concept and attitudes towards education were improved significantly there still may be important variations in the overt behavior of Indian and non-Indian students, which may arise from other social factors, such as differences in reference group structure, culture, home environment, and differences in the treatment received from teachers. The study of factors which may inhibit Indian students from achieving an equal degree of success as their non-Indian classmates is a primary goal for future enquiry.

#### Suggestions for Further Studies

Research often brings to light more questions than it answers: this research is no exception.

An obvious suggestion is that a future study expand the scope of this study to a much larger sample of Indian and non-Indian students, from a greater range of grades, for both rural and urban schools. It would be profitable to compare the self-concepts and the attitudes towards education of Indian students from different bands and different linguistic groups with each other and with a larger sample of non-Indian students.

A study designed to enlarge the scope of this study may assist in answering such questions as whether attitudes become more positive as students progress through school. Important variations between the Indian and the non-Indian





students may be disclosed from such a study.

Using the results of this study as a basis, there are other lines of research which may be fruitful. For example, other concepts may be used in the assessment of attitudes towards education. Also, other variables such as achievement, I.Q., and social economic status may be controlled.

Another important study may be directed towards comparing different aspects of the self-concept of both Indian and non-Indian students. For example, it may be profitable to compare Indian and non-Indian students responses to: ME AS A STUDENT, ME AS A MALE, ME AS I AM, ME AS I WOULD LIKE TO BE, MY IDEAL SELF, ME AS I AM TO MY TEACHER, etc.

Further studies may also compare the semantic meanings of a series of concepts for both Indian and non-Indian students. A study of this scope may be very valuable especially if extraneous variables such as sex, grade level and self-concept were controlled.

An interesting methological study could be directed towards determining the actual range of attitudes expressed by students. The semantic differential could be used to evaluate whatever the individual student likes the most and whatever he dislikes the most. The actual range of attitudes could then be compared with the theoretical range. A study of this type could be used to provide examples of negative and positive attitudes, as well as examining the differences between a theoretical range on the semantic differential and an actual range of expressed attitudes.





The examination of some of the interesting questions brought to light by this study would provide significant contributions to the sociology of education.



## REFERENCES

- Abu-Laban, B. 1965. "In-Group Orientation and Self-Conception of Indian and Non-Indian Students in an Integrated School." Alberta Journal of Educational Research 11: 188-194.
- . 1966. "The Impact of Ethnicity and Occupational Background on the Aspirations of Canadian Youth." Sociological Inquiry 36: 116-123.
- Allport, G.W. 1958. The Nature of Prejudice. Reading, Mass.: Addison Wesley.
- Bartlett, M.S. 1937. "Properties of Sufficiency and Statistical Tests." Proceedings of the Royal Society of London, Series A, 160: 268-282.
- Bean, R.E. 1966. "An Exploratory Comparison of Indian and Non-Indian Secondary School Students' Attitudes." M.Ed. Thesis, University of Alberta, Edmonton.
- Benedict, R. 1934. Patterns of Culture. Cambridge, Mass.: The Riverside Press.
- . 1949. "Continuities and Discontinuities in Cultural Conditioning." In A Study of Interpersonal Relations, edited by P. Mullahy. New York: Thomas Nelson and Sons.
- Bogardus, E.S. 1943. The Mexican in the United States. Los Angeles: University of Southern California Press.
- Box, G.E.P. 1953. "Non-Normality and Tests on Variance." Biometrika 40: 318-335.
- Breer, P.E. and E.A. Lock. 1965. Task Experience as a Source of Attitudes. Homewood, Ill.: The Dorsey Press.
- Brinton, J.E. 1961. "Deriving an Attitude Scale from Semantic Differential Data." Public Opinion Quarterly 25: 289-295.
- Campbell, A. and G. Katona. 1953. "The Sample Survey: A Technique for Social-Science Research." In Research Methods in the Behavioral Sciences, edited by L. Festinger and D. Katz. New York: Holt, Rinehart, and Winston.
- Canadian Association of School Superintendents and Inspectors. 1965. The Education of Indian Children in Canada. Toronto: The Ryerson Press.





- Card, B.Y. 1968. Trends and Changes in Canadian Society. Toronto: Macmillian of Canada.
- Carroll, J.B. 1959. "Review of the Measurement of Meaning." Language 35: 58-77.
- Dahrendorf, R. 1959. Class and Class Conflict in Industrial Society. Stanford, Calif.: Stanford University Press.
- Diar, L.N. 1965. "Studies in Social Attitudes III: Attitudes Assessment Through SD." Journal of Social Psychology 67: 303-314.
- Dumont, R.V. and M.L. Wax. 1969. "Cherokee School Society and the Intercultural Classroom." Human Organization 28: 217-226.
- Eggan, F. 1950. Social Organization of the Western Pueblos. Chicago: University of Chicago Press.
- \_\_\_\_\_. 1966. The American Indian: Perspectives for the Study of Social Change. Chicago: Aldine Publishing Co.
- Festinger, L. 1957. A Theory of Cognitive Dissonance. New York: Harper and Row.
- Firth, R. 1958. Human Types: An Introduction to Social Anthropology. New York: The New American Library.
- Fisher, A.D. 1969. "White Rites Versus Indian Rights." Trans-action 7: 29-33.
- Fisher, R.A. 1947. Design of Experiments. Edinburgh: Oliver and Boyd.
- Ford, L.H. and M. Meisels. 1965. "Social Desirability and the Semantic Differential." Educational and Psychological Measurement 24: 465-475.
- Friedenberg, E.Z. 1959. The Vanishing Adolescent. New York: Dell Publishing Co.
- Friesen, J.W. and L.C. Lyon. 1970. "Progress of Southern Alberta Native People." Journal of American Indian Education 9: 15-23.
- Fuchs, E. 1970. "Time to Redeem an Old Promise." Saturday Review, January 24, 1970.
- Glass, G.V. and J.C. Stanley. 1970. Statistical Methods in Education and Psychology. Englewood Cliffs, N.J.: Prentice-Hall.



- Gordon, M.M. 1964. Assimilation in American Life. New York: Oxford University Press.
- Government of Canada. 1945. "Annual Report of the Department of Mines and Resources." Ottawa, Ont.: Department of Mines and Resources.
- \_\_\_\_\_. 1950. Annual Report of the Department of Citizenship and Immigration. Ottawa, Ont.: Department of Citizenship and Immigration.
- \_\_\_\_\_. 1955. Annual Report of the Department of Citizenship and Immigration. Ottawa, Ont.: Department of Citizenship and Immigration.
- \_\_\_\_\_. 1960. Annual Report of the Department of Citizenship and Immigration. Ottawa, Ont.: Department of Citizenship and Immigration.
- \_\_\_\_\_. 1964. The Indian in Transition: Indian Education. Ottawa, Ont.: Indian Affairs Branch, Department of Citizenship and Immigration.
- \_\_\_\_\_. 1967. Annual Report of the Department of Citizenship and Immigration. Ottawa, Ont.: Department of Citizenship and Immigration.
- Gross, N. and W. Martin. 1957. "On Group Cohesiveness." American Journal of Sociology 63: 549-554.
- Hamilton, W.L. 1966. "The Perception of Problems Associated with Intergroup Relations in Integrated Schools." M.Ed. thesis, University of Alberta, Edmonton.
- Harkins, A.M. 1968. "Chippewa Children at the Primary Level." Journal of American Indian Education 8: 17-25.
- Hawthorn, H.B. 1967. A Survey of the Contemporary Indians of Canada, Part 2. Ottawa, Ont.: Indian Affairs Branch.
- Heider, F. 1958. The Psychology of Interpersonal Relations. New York: John Wiley and Sons.
- Helper, M.M. and S. Garfield. 1965. "Use of SD to Study Co-Culturation of American Indian Adolescents." Journal of Personality and Social Psychology 2: 817-822.
- Henry, J. and M.F. Spiro. 1953. "Psychological Techniques: Projective Tests in Field Work." In Anthropology Today, edited by A.L. Kroeber. Chicago: University of Chicago Press.





- Huxley, J.S. 1941. Man Stands Alone. New York: Harpers.
- Inkeles, A. 1960. "Industrial Man: The Relation of Status to Experience, Perception, and Value." American Journal of Sociology 66: 1-31.
- Katz, D. 1967. "The Functional Approach to the Study of Attitudes." In Current Perspectives in Social Psychology, edited by E.P. Hollander and R.G. Hunt. New York: Oxford University Press.
- \_\_\_\_\_. and E. Stotland. 1959. "A Preliminary Statement of a Theory of Attitude Structure and Change." In Psychology: A Study of a Science. New York: McGraw-Hill.
- Kaufman, H.J. 1959. "The Semantic Differential: A Critical Appraisal." Public Opinion Quarterly 23: 437-438.
- Keeping, E.S. 1962. Introduction to Statistical Inference. New York: Van Nostrand.
- Kerlinger, F.N. 1964. Foundations of Behavioral Research. Toronto: Holt, Rinehart, and Winston.
- Kluckhohn, C. 1963. Mirror for Man. Greenwich, Conn.: Fawcett Publications.
- Kluckhohn, F. and F.L. Strodtbeck. 1961. Variations in Value Orientation. Evanston: Row, Peterson.
- Kumata, H. and W. Schramm. 1956. "A Pilot Study of Cross-Cultural Methodology." Public Opinion Quarterly 20: 229-238.
- Lundberg, G.A., C.C. Schrag, and O.N. Larsen. 1963. Sociology. New York: Harper and Row.
- MacLay, H. and E.E. Ware. 1961. "Cross-Cultural Use of the Semantic Differential." Behavioral Science 6: 185-190.
- Manson, P. 1961. Common Sense About Race. London: Victor Gollancz.
- McHugh, R.B. and D.S. Ellis. 1955. "The 'Post-Mortem' Testing of Experimental Comparisons." Psychological Bulletin 52: 425-428.
- Mehling, R. 1959. "A Simple Test for Measuring Intensity of Attitudes." Public Opinion Quarterly 23: 576-578.
- Messick, S.J. 1957. "Metric Properties of the Semantic Differential." Educational and Psychological Measurement 17: 200-206.





- Montagu, M.F.A. 1942. Man's Most Dangerous Myth: The Fallacy of Race. New York: Columbia University.
- \_\_\_\_\_. (Editor) 1962. Culture and the Evolution of Man. New York: Oxford University Press.
- \_\_\_\_\_. 1965. The Idea of Race. Lincoln, Neb.: University of Nebraska Press.
- Norman, W.T. 1959. "Stability-Characteristics of the Semantic Differential." American Journal of Psychology 72: 581-584.
- Osgood, C.E. 1952. "The Nature and Measurement of Meaning." Psychological Bulletin 49: 197-237.
- \_\_\_\_\_. and G.J. Suci. 1955. "Factor Analysis of Meaning." Journal of Experimental Psychology 50: 325-338.
- \_\_\_\_\_. , G.J. Suci, and P.H. Tannenbaum. 1957. The Measurement of Meaning. Urbana: University of Illinois.
- \_\_\_\_\_. 1959. "Semantic Space Revisited." Word 15: 192-200.
- \_\_\_\_\_. 1964. "Semantic Differential Technique in the Comparative Study of Cultures." American Anthropologist 66: 171-200.
- \_\_\_\_\_. 1967. "Cognitive Dynamics in the Conduct of Human Affairs." In Current Perspectives in Social Psychology, edited by E.P. Hollander and R.G. Hunt. New York: Oxford University Press.
- Parsons, T. and E.A. Shils, et al. 1951. Towards a General Theory of Action. Cambridge, Mass.: Harvard University Press.
- \_\_\_\_\_. 1959. "The School Class as a Social System: Some of Its Functions in American Society." In The Sociology of Education: A Sourcebook, edited by R.R. Bell and H.R. Stub. Nobleton, Ont.: Irwin-Dorsey.
- Popham, W.J. 1967. Educational Statistics: Use and Interpretation. New York: Harper and Row.
- Porter, J. 1965. The Vertical Mosaic: An Analysis of Social Class and Power in Canada. Toronto: University of Toronto Press.
- Prothro, E.T. and J.D. Keehn. 1957. "Stereotypes and Semantic Space." Journal of Social Psychology 45: 197-209.





- Radin, P. 1944. The Story of the American Indian. New York: Liveright.
- Remmers, H.H. 1934. "Studies in Attitudes." Bulletin of Purdue University for Studies in Higher Education 35: No. 4.
- \_\_\_\_\_. and E.B. Silance. 1934. "Generalized Attitude Scales." Journal of Social Psychology 5: 298-312.
- Rokeach, M. 1963. "The Organization and Modification of Beliefs." Centennial Review 7: 375-395.
- \_\_\_\_\_. 1968. "The Nature of Attitudes." In International Encyclopedia of the Social Sciences, edited by D.L. Sills. New York: Macmillan.
- Rose, P.I. 1964. They and We: Racial and Ethnic Relations in the United States. New York: Random House.
- Rosen, E. 1959. "A Cross-Cultural Study of Semantic Profiles and Attitude Differences: (Italy)." Journal of Social Psychology 49: 137-144.
- Rosenberg, M.J. 1960. "A Structural Theory of Attitude Dynamics." Public Opinion Quarterly 24: 319-340.
- \_\_\_\_\_. and R.P. Abelson. 1960. "An Analysis of Cognitive Balance." In Attitude Organization and Change, edited by C.I. Hovland and I.L. Janis. New Haven, Conn.: Yale University Press.
- Rosenthal, R. and R.L. Rosnow. (Editors) 1969. Artifact in Behavioral Research. New York: Academic Press.
- Secord, P.F. and C.W. Backman. 1964. Social Psychology. New York: McGraw-Hill Books.
- Sheps, E. 1970. "Indian Youth's Attitudes Toward Non-Indian Patterns of Life." Journal of American Indian Education 9: 19-27.
- Sherif, M. and C.W. Sherif. 1960. Social Psychology. New York: Harper and Row.
- Silverman, I. 1968. "Role-Related Behavior of Subjects in Laboratory Studies in Attitude Change." Journal of Personality and Social Psychology 8: 343-348.
- Snider, J.G. 1962. "Profiles of Some Stereotypes Held by Ninth-Grade Pupils." Alberta Journal of Educational Research 8: 147-156.





- Stanley, J.C. 1957. "Additional 'Post-Mortem' Tests of Experimental Comparisons." Psychological Bulletin 54: 128-130.
- Suci, G.J. 1960. "A Comparison of Semantic Structures in American Southwest Culture Groups." Journal of Abnormal and Social Psychology 61: 25-30.
- Tanaka, Y., T. Oyama, and C.E. Osgood. 1963. "A Cross-Cultural and Cross-Concept Study of the Generality of Semantic Space." Journal of Verbal Learning and Verbal Behavior 2: 392-405.
- Tannenbaum, P.H. 1956. "Initial Attitude Toward Source and Concept as Factors in Attitude Change Through Communication." Public Opinion Quarterly 20: 413-425.
- Vogt, E.Z. 1951. Navaho Veterans, A Study of Changing Values. Papers of the Peabody Museum of Harvard University 41: No. 1.
- Wax, M.L., R.H. Wax, and R.V. Dumont. 1964. "Formal Education in an American Indian Community." Supplement to Social Problems 11: No. 4.
- Weinreich, U. 1958. "Travels Through Semantic Space." Word 14: 346-366.
- Wiggins, N. and M. Fishbein. 1969. "Dimensions of Semantic Space." In Semantic Differential Technique: A Source-book, edited by J.G. Snider and C.E. Osgood. Chicago: Aldine Publishing Co.
- Williams, J.E. 1966. "Connotations of Racial Concepts and Color Names." Journal of Personality and Social Psychology 3: 531-540.
- Wolcott, H.F. 1967. A Kwakiutl Village and School. Toronto: Holt, Rinehart, and Winston.
- Zentner, H. 1962. "Parental Behavior and Student Attitudes Towards High School Graduation Among Indian and Non-Indian Students in Oregon and Alberta." Alberta Journal of Educational Research 8: 211-219.
- . 1963. "Parental Behavior and Student Attitudes Towards Farther Training Among Indian and Non-Indian Students in Oregon and Alberta." Alberta Journal of Educational Research 9: 22-30.



APPENDIX A









## INSTRUCTIONS

The purpose of this test is to measure the meaning of certain words to you. Often words have different meanings for different people, therefore, in taking this test, please make your judgments on the basis of what these words mean to you. On each page of this booklet you will see two CAPITALIZED words, one at the top of the page and one at the center of the page. Beneath and to both sides of each CAPITALIZED word you will see a group of other words called scales. You are to rate each CAPITALIZED word on each of the thirteen scales below that word.

Here is an example of how these words are to be judged.

If you feel that the CAPITALIZED word is very closely related to one end of the scale, you should place your check mark (X) as follows:

OR

Nice	<u>X</u>	_____	_____	_____	_____	_____	Awful
Nice	_____	_____	_____	_____	_____	<u>X</u>	Awful

If you feel that the CAPITALIZED word is quite closely related to one or the other end of the scale (but not extremely) you should place your check mark as follows:

OR

Rich	_____	<u>X</u>	_____	_____	_____	_____	Poor
Rich	_____	_____	_____	_____	<u>X</u>	_____	Poor

If the CAPITALIZED word seems only slightly related to one side (but not really neutral) then you should check as follows:

OR

Good	_____	_____	<u>X</u>	_____	_____	_____	Bad
Good	_____	_____	_____	_____	<u>X</u>	_____	Bad

If you consider the CAPITALIZED word to be neutral on the scale or if the scale is completely irrelevant, then you should place your check mark in the middle space:

Kind	_____	_____	_____	<u>X</u>	_____	_____	Cruel
------	-------	-------	-------	----------	-------	-------	-------



IMPORTANT

1. Place your check mark in the middle of the line, not between the lines.

THIS			NOT THIS		
_____	_____	<u>  X  </u>	_____	<u>  X  </u>	_____

2. Be sure to check every scale for every CAPITALIZED word - do not leave any scales not marked.
3. Never put more than one check mark on a single scale.

You should first think of the word at the top of each set of scales. Get a picture in your mind of what the word describes and then check each scale rapidly. It is your first "feelings" about the word that we want. Please be careful when you are checking each scale, we want your true "feelings".









## ENGLISH (the Language)

Good								Bad
Ugly								Beautiful
Large								Small
Cruel								Kind
Slow								Fast
Pleasant								Unpleasant
Weak								Strong
Nice								Awful
Active								Passive
Happy								Sad
Heavy								Light
Cold								Hot
Fair								Unfair

## ME

Fair								Unfair
Cold								Hot
Heavy								Light
Happy								Sad
Active								Passive
Nice								Awful
Weak								Strong
Pleasant								Unpleasant
Slow								Fast
Cruel								Kind
Large								Small
Ugly								Beautiful
Good								Bad









# DISCIPLINE

Good								Bad
Ugly								Beautiful
Large								Small
Cruel								Kind
Slow								Fast
Pleasant								Unpleasant
Weak								Strong
Nice								Awful
Active								Passive
Happy								Sad
Heavy								Light
Cold								Hot
Fair								Unfair

## EXAMINATION

Fair								Unfair
Cold								Hot
Heavy								Light
Happy								Sad
Active								Passive
Nice								Awful
Weak								Strong
Pleasant								Unpleasant
Slow								Fast
Cruel								Kind
Large								Small
Ugly								Beautiful
Good								Bad



## READING

Good								Bad
Ugly								Beautiful
Large								Small
Cruel								Kind
Slow								Fast
Pleasant								Unpleasant
Weak								Strong
Nice								Awful
Active								Passive
Happy								Sad
Heavy								Light
Cold								Hot
Fair								Unfair

## HOMework

Fair								Unfair
Cold								Hot
Heavy								Light
Happy								Sad
Active								Passive
Nice								Awful
Weak								Strong
Pleasant								Unpleasant
Slow								Fast
Cruel								Kind
Large								Small
Ugly								Beautiful
Good								Bad





## STUDYING

Good								Bad
Ugly								Beautiful
Large								Small
Cruel								Kind
Slow								Fast
Pleasant								Unpleasant
Weak								Strong
Nice								Awful
Active								Passive
Happy								Sad
Heavy								Light
Cold								Hot
Fair								Unfair





University of Alberta Library



0 1620 1066 5634

**B29989**